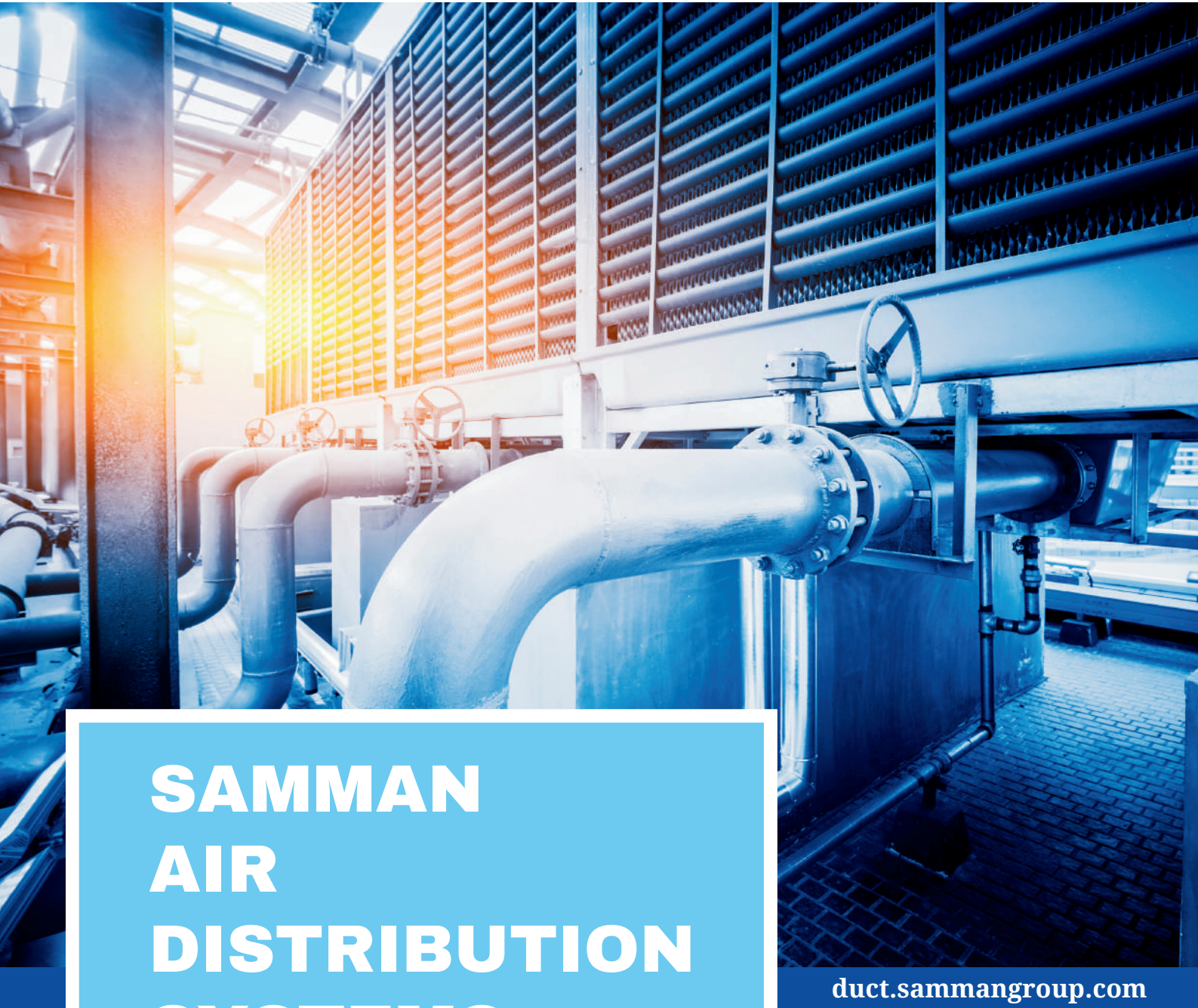




**SAMMAN
AIR
DISTRIBUTION
SYSTEMS**

duct.sammangroup.com



+966 592995120
+966 597510438



sales.duct@sammangroup.com

CONTENT

- introduction
- our products
- Duct products
- Spiral Duct
- Pre Insulated Duct
- Ac Grills
- List of Machinery
- Certificates
- Projects Reference
- Previous Approvals



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+966 597510438



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CEO MESSAGE

I am Proud to serve as the CEO OF **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS**

the excellence we have reached over the past years is because of :

- we truly Understand the needs of our clients

High quality , low quality , low cost , timely completion and safety records are always primary

- success is not only looking into the future but also to believe it's essential to occasionally look into our past from where we began

We Should not expect to stay pioneers in our business unless we measure the growth of our past as well as to take the necessary and appropriate actions to meet the needs of the society and our clients and to keep up with giant development plan that has been adopted by the Saudi government (**Saudi Vision**) **2030**

The development ,support , trust and dedication of our loyal staff are the elements that combine to make **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS** a winning team. I ask Allah to grant us with his blessing

**Your Sincerely,
Eng.M.Firas Alsamman
(CEO)**

INTRODUCTION

Based on many years of experience and knowledge of its management and the development potential level of its employees **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS** is a solid establishment specialized for contracting in building, electrical, mechanical, road, water, and sanitary works.

And according to the **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS** was able to triple the volume of its business during the past few years and now striving to implement another expansion plan to double the volume of its business again

We are the second generation of this business that started by **Eng.Yahya Al Samman since 1973** and now we have a management contract with **SAMMAN GROUP** in Istanbul, Turkey.

To achieve this goal **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS** is generously investing in its human resources in addition to its financial capabilities



FIRE TRIANGLE



FIRE DAMPERS

SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS

- is a leading manufacturer of a complete line of air distribution products, dedicated to provide the best service for
- HVAC market. since it was founded in 1973, SAMMAN EsT. has expanded its products for use in residential , commercial, industrial, and institutional buildings.
- controls the quality of each product at every stage of the manufacturing process qualified quality control staffs are in charge of maintaining a level of quality that meets the highest standards . being a leaders in manufacturing of air distribution products , based on long experience and proficiency of its highly motivated staff,
- provide the best solution for all kinds of HVAC inquires
- manufactured true a wide range of products like rectangular Ducts , Spiral Ducts, Volume control Dampers, Fire Dampers and sound Attenuators. its products performance has been tested and certified at renowned laboratories and test facilities, as well as having been proven in a large number of installation and under all types of operating condition
- has equipped itself to expand its sales operation and manufacturing capabilities to cover the markets of the middle East , Asia and Europe.

STRATEGIC GOALS

move from commodities to brands :

to beat the industry trend in a situation of over supply we need to move away from selling commodities by converting them into brands

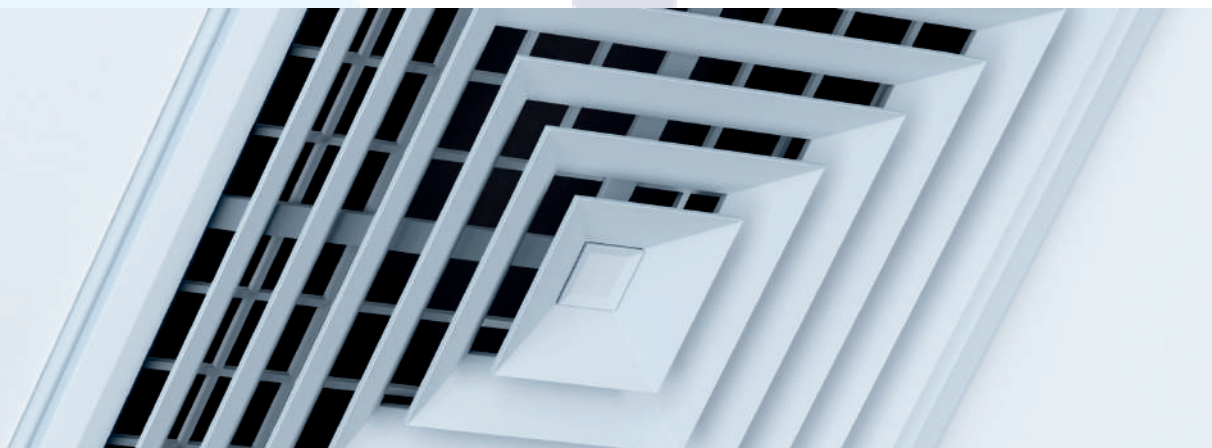
value creating partnership with customer and supplier:

we recognize the value of partnerships And so do our customer and suppliers Whom we have helped grow in the past.

inspired and happy employees:

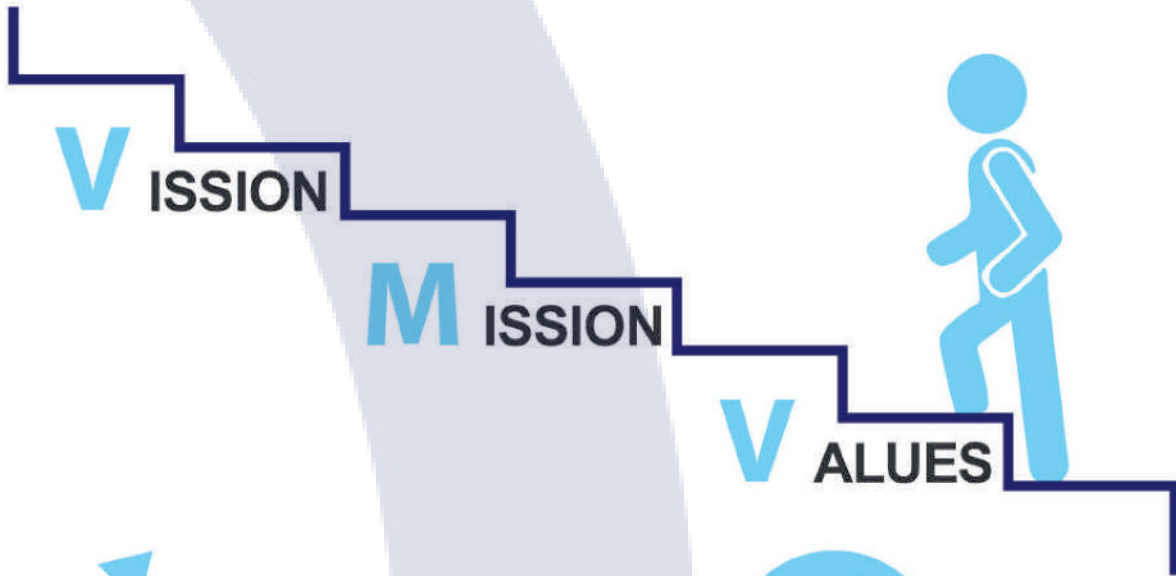
A lot is dependent on the individual spirit and enthusiasm or the employees to realize our vision.

we will accelerate our efforts to provide a work environment that ensure a sense of purpose and personal growth for each individual.



continue to be lowest cost producer. The world outside is, however, changing fast and lowest cost status is constantly under threat from new technologies, cost escalation of raw materials inputs , energy and labor.

OUR VISION, MISSION & VALUES



Our Vision

We are striving to be one of the best in the construction field including civil, architectural and electromechanical works for industrial, commercial, Service buildings and roads in the Middle East.



Our Mission

Provide customers with the best service by implementing projects with best quality and lower cost.

Our mission has been known through what we set out to do each day.



Our Values

SAMMAN'S ethics lead everything we do. Incorporating these core values in our daily work, and making them an integral part of our culture, is the guarantee to our future success. Our Values decides who we are and what we believe.

- Strict commitment to Quality, Safety and a Healthy environment
- An open relationship with our clients and employees based on mutual trust, Respect and success.
- Transparency, accountability and integrity in all we do.

OUR VISION, MISSION & VALUES



The main sections and activities that contributed in our success are:



Employees

- **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS** (Duct and air distribution system).
- SAMMAN for decor and wood work.
- Assembling control panel board.
- A planning division to make reachable goals.
- A quality control division to monitor the achievement of each plan.
- Using the latest technology and information transfer to communicate between all departments and employees with the management.
- The establishment is in process to add a partner that will make an addition And an advantage to the structure, capital and volume of its business.



One of the main reasons that made **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS** what it is today, is attracting the talented Human resources, develop and maintain them.

Alot of events are organized to keep the relations between all employees not just for work, such as football matches, trips, Ramadan breakfasts. In their gladness and grief we stand with them.

OUR BANK ACCOUNTS & FACILITIES

SAMMAN FACTORY

FOR AIR DISTRIBUTION SYSTEMS

has Facilities with the following banks



Arab National Bank

SA 3030400108095099600010



Saudi American Bank

SA 4600000000000014409410



National Commercial Bank

SA 3010000012366900000303

SA 7410000012385563000107



our projects
are spread across
the Kingdom of
Saudi Arabia







OUR CLIENTS



National Commercial Bank
البنك الأهلي التجاري



Al-Rajhi Bank
مصرف الراجحي



Bank AlJazira
بنك الجزيرة



Al Bilad Bank
بنك البلاد



Alinma Bank
مصرف الإنماء



Banque Saudi Fransi
البنك السعودي الفرنسي



Arab National Bank
البنك العربي الوطني



Samba Bank
بنك سامبا



Umm Al-Qura University
جامعة أم القرى



King Abdulaziz University
جامعة الملك عبدالعزيز



University of Hail
جامعة حائل



Jazan University
جامعة جازان



Taibah University
جامعة طيبة



King Abdullah University
of Science and Technology
جامعة الملك عبدالله
للعلوم والتقنية



Institute of Public Administration
معهد الإدارة العامة



Technical and Vocational
Training Corporation
المؤسسة العامة للتدريب
التقني والمهني

OUR CLIENTS



Saudi Aramco
أرامكو السعودية



Ministry Of Higher Education
وزارة التعليم العالي



Ministry Of Education
وزارة التربية والتعليم



Ministry Of Health
وزارة الصحة



Ministry of National Guard
Health Affairs
وزارة الحرس الوطني



Armed Forces
Medical Services
الخدمات الطبية
للقوات المسلحة



King Faisal Specialist Hospital
مستشفى الملك فيصل التخصصي



Dr. Soliman Fakeeh Hospital
مستشفى دكتور سليمان فقيه



General Authority of Civil Aviation
الهيئة العامة للطيران المدني



Saudi Arabian Airlines
الخطوط الجوية العربية السعودية



Saudi Commission for
Tourism & National Heritage
الهيئة العامة للسياحة
والتراث الوطني



General Presidency
of The Two Holy Mosques
الرئاسة العامة لشؤون
المسجد الحرام والمسجد النبوي



Jabal Omar
جبل عمر



Bahra Cables
كابلات بحرة



Nissan
نيسان



TOYOTA
تويوتا

OUR CLIENTS



Saud Consult
سعود كونسلت



Zuhair Fayeze
Partnership Consultants
زهير فايز ومشاركوه
للاستشارات الهندسية



Innovators Consulting Engineers
المبدعون مهندسون استشاريون



Arabian Creativity Consultants
الإبداع العربي للاستشارات الهندسية



Alfozan Consulting Engineers
الفوزان للاستشارات الهندسية



Beeh
Planners, Architects & Engineers
البيئة
مخططون ومعماريون ومهندسون



Saudi Diyar Consultants
الديار السعودية
للاستشارات الهندسية



CONSULTANCY GROUP PRO.
محترفي المجموعة الاستشارية



Ahmed Al-Mousa
Engineering Consultants
أحمد الموسى للاستشارات الهندسية



Mohammed Harasani Architects
محمد حامد الهرساني معماريون



Saudi Binladin Group
مجموعة بن لادن السعودية



Emaar
إعمار



Beijing Construction
Engineering Group
مجموعة بكين الهندسية للإنشاءات



Ruwad Civil Construction
رواد المدائن للإنشاء والتعمير



Al Salem Johnson Controls
آل سالم جونسون كونترولز



International Hospitals
Construction Co. Ltd
شركة إنشاء المستشفيات
الدولية المحدودة



Azmeel
أزميل



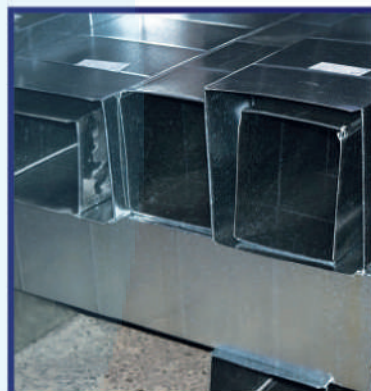
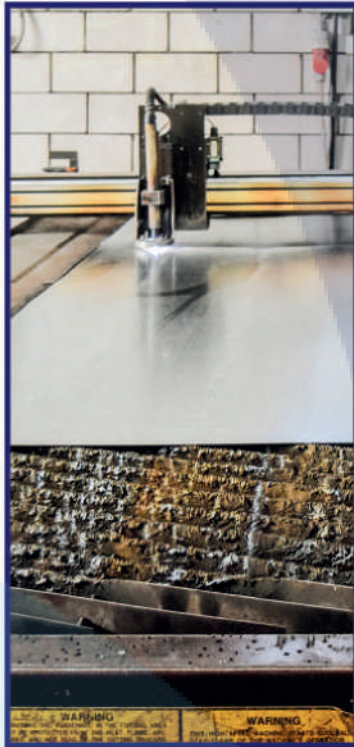
Al Saad General Contracting
السعد للمقاولات العامة



Al-alameya Group
مجموعة شركات العالمية



Technical Electro
Mechanical Works Co. LTD.
شركة تقنية الأعمال الكهربائية
والميكانيكية المحدودة

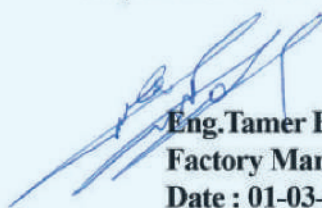


SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS QUALITY POLICY

SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS objective is to be the leading manufacturer and steel & wooden products and new technologies in the processes.

The implementation of the internal procedures which constitute our policy insures that our products and services will comply with and satisfy the business requirements and needs of our Customers.

- We strive for continuous improvement and development of products and services to meet the challenging needs and demands of our customers in a timely manner.
- We are committed to achieve total customer satisfaction by being diversified, flexible and efficient.
- Our success is derived from the success of our Customers. We seek continuous improvement of internal processes to meet the ever-growing demands of today's and future markets.
- We do not compromise safety. The safety of the employees and customers is the corner stone of our operation.
- We coach our employees to be the best in their field. We make them aware of our policies, train them and consequently reward them for being innovative and self-motivated.
- We promote our products and services to our customers through highly qualified personnel. Our growth is based on the growth of our personnel.
- We are not afraid to change and accept feed back from our customers. Market feedback is the driving force behind our success.
- We are committed to continuously monitor and improve the quality system by adopting and implementing a Quality Management System according to the requirements of ISO9001: 2008.



Eng. Tamer Bashouri
Factory Manager
Date : 01-03-2009

ABOUT US

SAMMAN QUALITY POLICY



QUALITY POLICY

To provide competitive products and services conforming to customer needs and expectations first time, on time, every time. Consistent with group purpose, **SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEMS** shall constantly strive to improve the quality of life of the communities it serves through excellence in all facets of its activities.

We are committed to creating value by continually improving our system and process through Innovation, involving all our employees. This policy shall from the basis of establishing and reviewing to align with business direction and to comply with all the requirements of the Quality Management Standard.



QUALITY OBJECTIVES

To enhance company's ability to consistently our costumer's needs, by improving organizational and Team effectiveness.



PRODUCT CONFORMANCE

We strive for conformance of products to standards.

DELIVERIES:

Deliveries are made as per production Schedules and plannings.



QUALITY ASSURANCE (RAW MATERIAL , IN-PROCESS & FINAL PRODUCT)

PURPOSE:

The purpose of this procedure is to describe the process of quality control and inspection on the raw materials, in-process & final product

SCOPE:

This procedure applies to all products manufactured at SAMMAN plant.

DEFINITIONS:

PM: Production Manager.

QE: Quality Engineer.

RESPONSIBILITIES:

It is the responsibility of the QE to follow and implement the instructions described by this procedure covering the Quality Assurance activities for SAMMAN Raw Materials, in-process & final product.

PROCEDURE:

All Quality Assurance/ Control activities for Raw Materials, in-process & final product are mentioned in WI-82-02-1

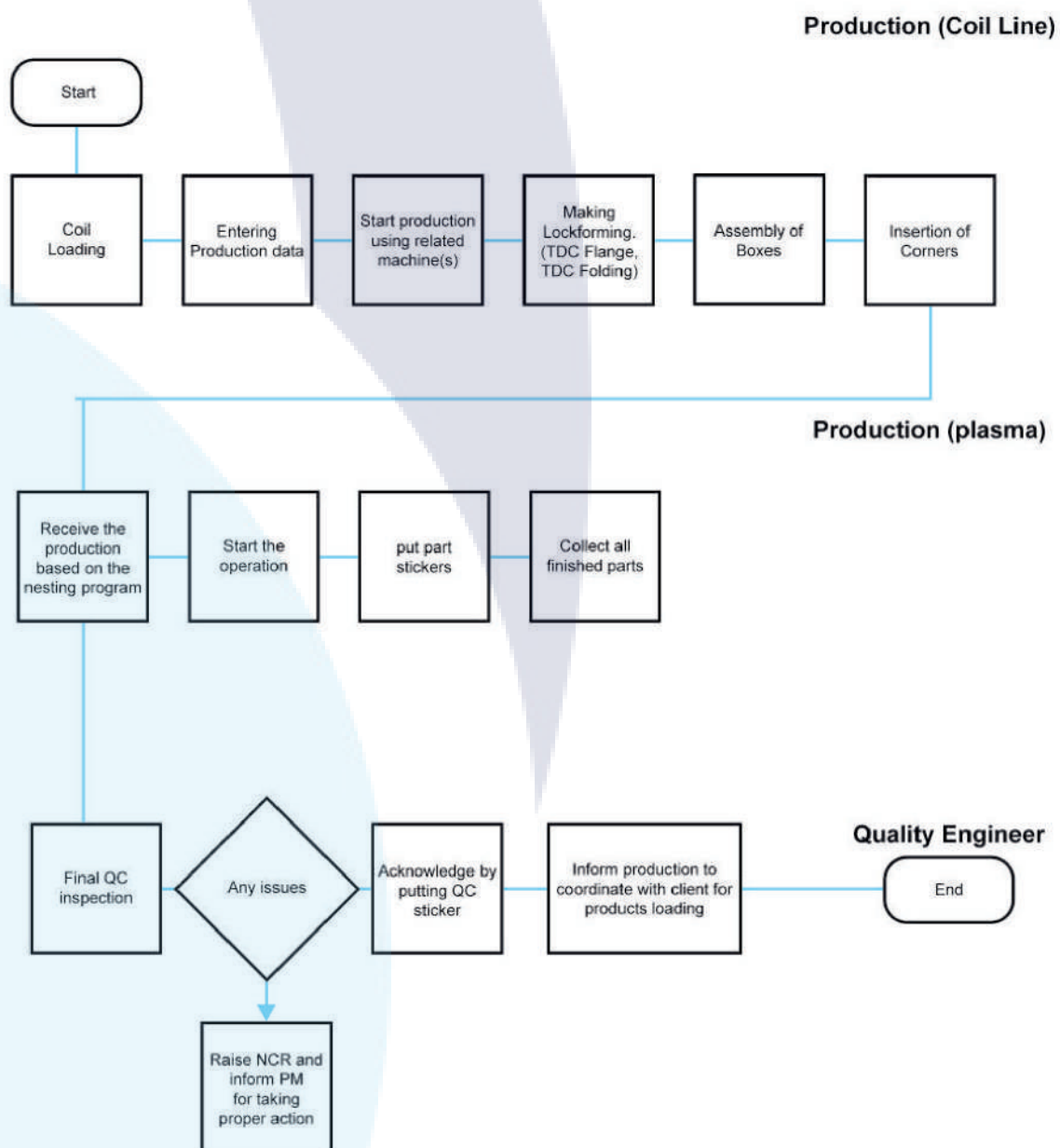
RELATED DOCUMENTS:

SOP-83-01 Procedure of Non-Conforming Product

WI-82-01-01 Quality Assurance Plan

PLANNING & PRODUCTION SYSTEM

SOP-75-01 - Air Duct HVAC Accessories Manufacturing



PLANNING & PRODUCTION SYSTEM

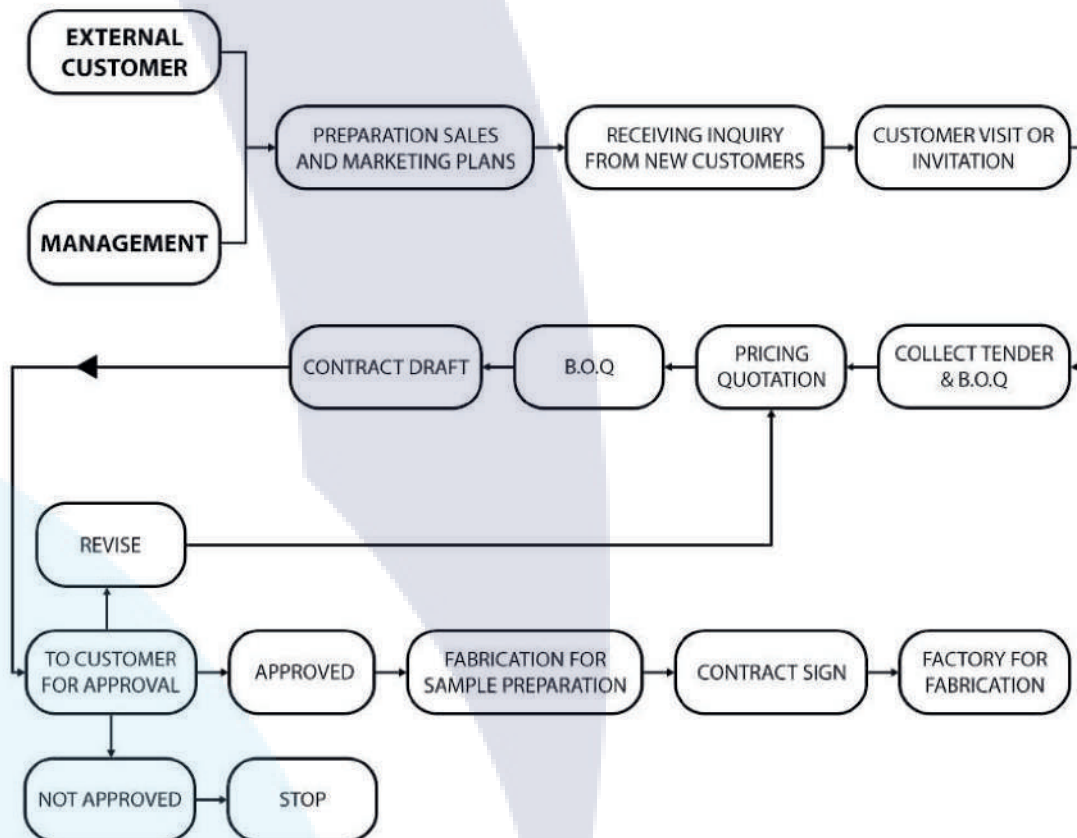
RELATED DOCUMENTS:

01. Weekly Production Plan (qf-75-01-01)
02. B.O.Q. (qf-75-01-02)
03. Plasma Inspection Report (qf-75-01-03)
04. Measurement Sheet (qf-75-01-04)
05. Coil Line AML 111(WI-75-01-01)
06. Plasma Machine – Farley (WI-75-01-02)
07. Plasma Machine – Koike (WI – 75-01-03)
08. Plasma Machine- ACL (WI -75-01-04)
09. Lockformer Big (WI-75-01-05)
- 10 Lockformer Small (WI – 75-01-06)
11. Lockformer Larosa (WI – 75-01-07)
12. Shearing Machine – Morgan (WI-75-01-08)
13. Shearing Machine- Beyeler (WI-75-01-09)
14. Folding Machine- Keetona (WI-75-01-10)
15. Folding Machine- Morgan- Manual Folder (WI-75-01-11)
16. Power Folding Machine- Frost (WI – 75-01-12)
17. Press Brake- Adira (WI-75-01-13)
18. Press brake- Barne (WI-75-01-14)
19. RAS Seam Locking Machine (WI-75-01-15)
20. RAS Seam Locking Machine (WI-75-01-16)
21. Standing S Cleat Machine (WI-75-01-17)
22. Beading Machine (WI-75-01-18)
23. TDC Folding Machine (WI-75-01-19)
24. TDC Flange Machine (WI-75-01-20)
25. Cornematic machine (WI-75-01-21)
26. Engel Seam Closing Machine (WI-75-01-22)
27. Power Roller (WI-75-01-23)
28. Chopsaw (WI-75-01-24)
29. Power Swager (WI-75-01-25)
30. Spot Welder (WI-75-01-26)
31. Spot Welder (WI-75-01-27)
32. Iron Worker (WI-75-01-28)
33. C & S Cleat machine (WI-75-01-29)
34. Power Flanger (WI-75-01-30)
35. Ductmate Flange Machine (WI-75-01-31)

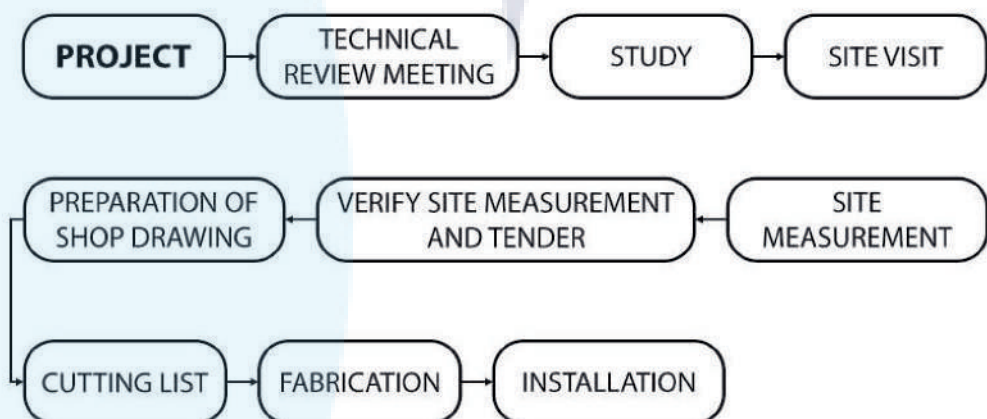
item: Galvanizel Duct & Accessories

No.	Item Group	Sample	Frequency	Inspection parameter	Sepecification	Instrument	Record	Responsibility
1.0	Raw material							
	G I Coil	All	Per lot	Width, 1220, 137, 140mm	As per the P.O	Measurement Tape	GRN+NCR	QE
				Thickness, 0,55,0,6,0,7,0,8,1,0,1,20	As per the P.O	Micrometer	GRN+NCR	QE
				Coating-G90	As per the P.O	Visual	GRN+NCR	QE
	TDC Comer	5 Pce.	Per lot	Thickness, Lengths	As per Drawing	Micrometer, Vernier	GRN+NCR	QE
	Ductmate Corner	5 Pce.	Per lot	Thickness, Lengths	As per sample	Micrometer, Vernier	GRN+NCR	QE
	TDC-35 Ductmate Corner	5 Pce.	Per lot	Thickness, Lengths	As per sample	Micrometer, Vernier	GRN+NCR	QE
	Gasket	5 Pce.	Per lot	Width, Thickness	As per sample	Vernier	GRN+NCR	QE
	G Clamp	5 Pce.	Per lot	Thickness, Bolt size, Width	As per sample	Vernier	GRN+NCR	QE
	Copper Wire	All Rolls	Per lot	Diameter Copper Specification	Machine Specification	Mictometer	GRN+NCR	QE
	Ductmate Flange	5 Pce.	Per lot	Width, Thickness	As per Sample	Vernier, Mictometer	GRN+NCR	QE
	Quadrant, KL7R, 8064	5 Pce.	Per lot	Width, Thickness	As per Sample	Vernier, Mictometer	GRN+NCR	QE
	Splitter Damper Bracket, SRP 50	5 Pce.	Per lot	Width, Thickness	As per Sample	Vernier, Mictometer	GRN+NCR	QE
	Ball Joint Damper Casting, SRP516	5 Nos.	Per lot	Thickness, Width	As per Sample	Scalr & Vernier	GRN+NCR	QE
	1/4 lich Dia Regulator Sets and Beanings, KS 145	5 Nos.	Per lot	Thickness, Square size	As per Sample	Visual	GRN+NCR	QE
	Side Seals BKDESSN	5 Nos.	Per lot	Width, Thickness	As per Sample	Vernier, Micrometer	GRN+NCR	QE
	Blade Bracket, BKP814	5 Nos.	Per lot	Thickness, Screw threaded Size	As per Sample	Visual	GRN+NCR	QE
	Straps-BKP13	5 Nos.	Per lot	Thickness, Screw threaded Size	As per Sample	Visual	GRN+NCR	QE
	Bush-BKP10	5 Nos.	Per lot	ID, OD,	As per Sample	Visual	GRN+NCR	QE
	Lo Bracket & Linkage Rod, BKP23	5 Nos.	Per lot	Length, Rod Diameter	As per Sample	Visual	GRN+NCR	QE
	Standard Pins-BKP5	5 Nos.	Per lot	Diameter, Length	As per Sample	Visual	GRN+NCR	QE
	Standard Pins-BKP6	5 Nos.	Per lot	Diameter, Length	As per Sample		GRN+NCR	QE
	Stuck Pin	5 Nos.	Per lot	Width, Pin Length	As per Sample	Visual	GRN+NCR	QE
	Rockwool Insulation,	5 Nos.	Per lot	Density, Thickness	As per the P.O	Measuring Tape, Visual	GRN+NCR	QE
	Rib Pin	5 Nos.	Per lot	Pin Size	As per Sample	Vernier	GRN+NCR	QE

SALES, MARKETING, PRICING AND CONTRACTING PROCESS FLOW



TECHNICAL DEPARTMENT PROCESS FLOW



OUR PRODUCTS

- Rectangular Duct - Galvanized
- Black Steel Duct
- Fire Rated Duct
- Stainless Steel Duct
- Spiral Duct
- Pre Insulated Duct
- Ac Grills
- Volume Control Damper
- Fire & smoke Damper
- plenum Box
- sand trap Louver
- Sound Attenuator
- Fire Damper
- Disc Valves
- Other Air outlets
- Access Door
- Flexible Connector
- Flangers & Corners
- Sealant & tapes



DUCT PRODUCTS

duct.sammangroup.com



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+966 597510438



sales.duct@sammangroup.com

DUCT PRODUCTS

RECTANGULAR DUCT

NOTES FOR TABLE 1-1:

1. "STD" denotes standard (nonvariable volume) air duct construction requirements (regardless of actual velocity level) for compliance with this document for all cases in which the designer does not designate the pressure classification for the duct system independent of fan static rating. "STV" denotes the standard construction classification for variable volume ducts for compliance with this document when the designer does not designate a class for this application See S1.4 on Page 1-8.
2. "A" denotes other pressure classes for which construction or installation details are give in this document and are AVAILBLE for designation in contract documents prepared by designers.
3. See Section S1.9 for sealing requirements related to duct pressure class.
4. The pressure class number in Tables 1-1 and 1-1S denotes construction suitable for a maximum level not less than the maximum operating pressure in the portion of the system receiving the classification from the designer.

Text references for ducts:

**TABLE 1-1S
STATIC PRESSURE**

Duct Pressure Class		Operating Pressure
(in.)	(Pa)	
½" w.g.	125	Up to ½" w.g.
1" w.g.	250	Over ½" up to 1" w.g.
2" w.g.	500	Over 1" up to 2" w.g.
3" w.g.	750	Over 2" up to 3" w.g.
4" w.g.	1000	Over 3" up to 4" w.g.
6" w.g.	1500	Over 4" up to 5" w.g.
10" w.g.	2500	Over 6" up to 10" w.g.



DUCT PRODUCTS

RECTANGULAR DUCT

PRECAUTIONS FOR TABLE 1-1:

1. The construction is, as indicated elsewhere in this manual, qualified by freedom from structural failure; however, accidental overpressure that could occur must be provided for at the design stage by overpressure relief (such as fail safe features, replaceable relief panels, controlled failure points, etc.)

2. Field tests (if ever used) to test structural adequacy should not exceed 125% of rated pressure. The assignment of a pressure class number less than the numerical value of the anticipated operating pressure involves risk.

3. Leakage test pressure should not exceed duct pressure class level.

4. Short-cycle pressure changes in duct systems can cause temporary noise. This is normally acceptable at system start-up and shutdown. To reduce or eliminate this noise, the designer must specify shorter-interval bracing, diagonal bracing, lagging, or other control means.

Duct Sealing Requirements Table 1-2

Seal Class	Sealing Required	Static Pressure Construction Class
A	All Transverse Joints Longitudinal Seams and Duct Wall Penetrations	4" W.G. AND UP
B	All Transverse Joint and Longitudinal Seams	3" W.G.
C	Transverse Joints	2" W.G.

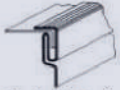
IN ADDITION TO THE ABOVE, ANY VARIABLE AIR VOLUME SYSTEM DUCT OF 1½"W.G. CONSTRUCTION CLASS THAT IS UPSTREAM OF THE VAV BOXES SHALL ALSO MEET SEAL CLASS C.



✉ sales.duct@sammangroup.com ☎ +966 592995120 / +966 597510438 🌐 duct.sammangroup.com

DUCT PRODUCTS

RECTANGULAR DUCT

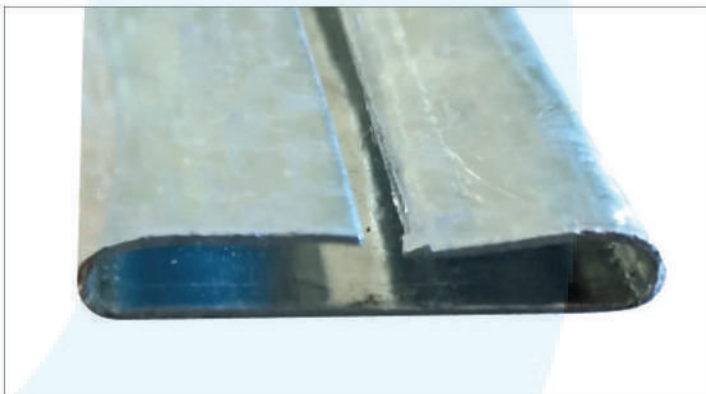
Ductwork Construction Standard: SMACNA 2005, 3rd Edition				Option 1	Joint Reinforcement at distance 1.20 Meters		
Pressure Class 2" Inch, 500 Pascals							
Duct Size,mm	Duct Gauge	Longitudinal Seams		Intermediate Reinforcement	Transverse Connector		
			Straight - Fittings		T1 - Drive Slip	T-6 Hemmed Slip	TDC-3S, T-25a
0 - 400	26G		 Pittsburgh Lock	Not Required	 Drive Slip T1	 Hemmed S Slip T - 6	
401 - 700	26G		 Pittsburgh Lock	Not Required			 TDC Flange
701 - 900	24G		 Pittsburgh Lock	Not Required			 TDC Flange
901 - 1000	22G		 Pittsburgh Lock	Not Required			 TDC Flange
1001 - 1200	20G		 Pittsburgh Lock	Not Required			 TDC Flange
1201 - 1500	20G		 Pittsburgh Lock	Joint Tie Rod (JTR)			 TDC Flange
1500 - 2100	20G		 Pittsburgh Lock	Joint Tie Rod (JTR) & MPT (1)			 TDC Flange
2100 - 2400	18G		 Pittsburgh Lock	Joint Tie Rod (JTR) & MPT (2)			 TDC Flange
2401 - 2700	18G		 Pittsburgh Lock	Galv Comanion Angle 50 X 50 X 5mm			 Galv Comanion Angle 50 X 50 X 5mm
Note Duct sizes that are 19" (483mm) and over and are 20G (1.00mm) or less, shall be beaded. Standard Cosntruction shall be made of Galva- nized Steel confirming to ASTM A653-G90, Sheets Thickness of the sheets will be as per the SMACNA Tolerance sheet.							

DUCT PRODUCTS

RECTANGULAR DUCT

Slip & Drive Cleat System

Slip and Drive cleat system is generally used for low end, less critical applications. Traditionally, only the drive cleats (C) which are positioning cleats were used for all four sides. To improve the strength, C & S Cleats are being used. C Cleats are normally used on the shortest side and S Cleats on the longest side.



DUCT PRODUCTS

RECTANGULAR DUCT

Use of Drive Cleat — C & S Cleats

TABLE 1-25M
T-1 FLAT DRIVE ACCEPTED AS REINFORCEMENT

DUCT WALL	0.55 mm		0.70 mm		0.85 mm		1.00 or more mm	
Static Pressure (Pa)	Maximum Duct Width (W) and Maximum Reinforcement Spacing (S)							
	w (mm)	S (mm)	w (mm)	S (mm)	W (mm)	S (mm)	w (mm)	S (mm)
125	508 457	3 N.R.	508	N.R.	508	N.R.	508	N.R.
250	508 356 305	2.4 3 N.R.	508 356	2.4 N.R.	508 457	3 N.R.	508	N.R.
500	457	1.5	457 305	2.4 N.R.	457 356	3 N.R.	457	N.R.
750	305 254	1.5 1.8	457 254	1.5 N.R.	457 305	1.5 N.R.	457 356	1.8 N.R.
1000	Not Accepted		406 203	1.5 N.R.	305 254	1.8 N.R.	305	N.R.
1500			305 203	1.5 N.R.	305 203	1.5 N.R.	305 254	1.8 N.R.

Although the flat drive slip T-1 does not satisfy the EI calculation requirements for Class A or Class B reinforcement, tests predict its suitability for use as reinforcement within the limits of this table.

N.R. - No reinforcement is required; however the T - 1 Joint may be used.

DUCT PRODUCTS

RECTANGULAR DUCT

Straight Ducts: SD



Description:

SAMMAN ducts single wall duct & fittings are factory fabricated and supplied with factory applied sealant on all longitudinal joints for S & Drive slip ducts and additionally on transverse joints for all flanged end ducts & fittings.

SAMMAN ducts can be supplied either fully assembled form or knocked down form for straight ducts (minimum requirement for assemble of straight ducts on site) fittings will be delivered fully assembled with factory applied sealant.

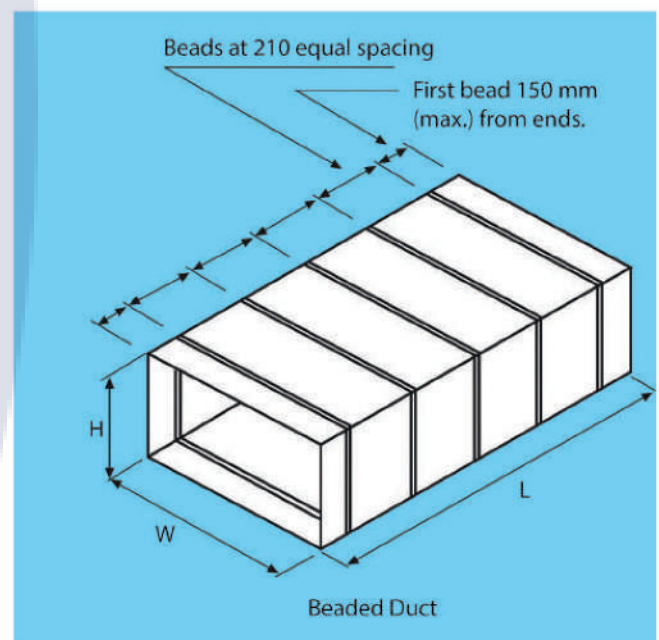
SAMMAN ducts can be supplied in various materials:

- G, galvanized steel (in accordance with ASTM 653, G90 coating)
- H, stainless steel (in accordance with ASTM A240/480 and various material grades)

Dimensions:

All straight ducts are beaded or cross broken (except if duct is double wall, interanly lined, negative pressure, Ga. 18 ducts, and 4 w.g. or above) and fittings are either cross broken or straight beaded, from size 483mm and above.

Standard duct lenght : 1200 mm (4 teet)



Ordering

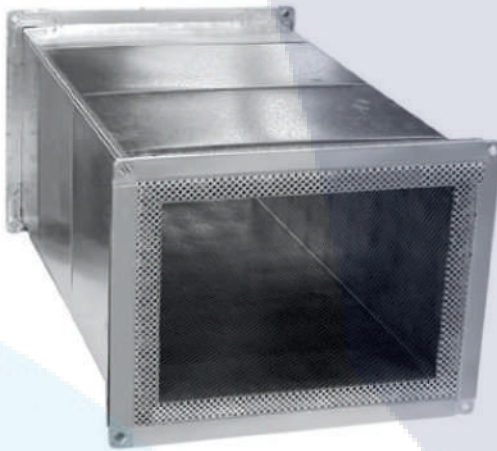
Product code: SD - aaa - bbb - ccc

Type _____
Wmm _____
H mm _____
L mm _____

DUCT PRODUCTS

RECTANGULAR DUCT

Dobule Wall Ducts:



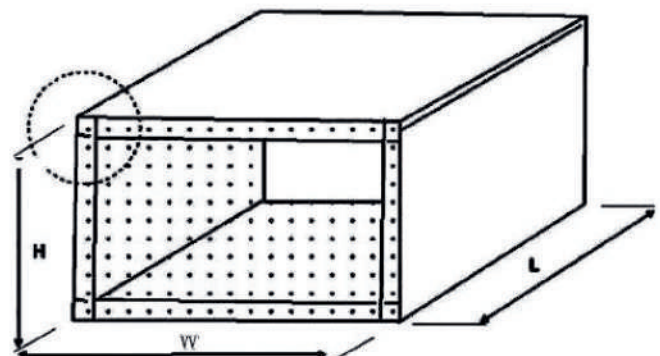
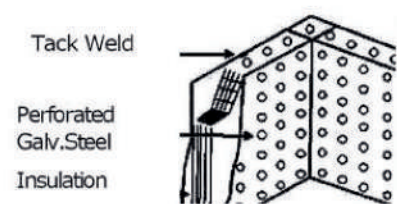
Description:

SAMMAN has a complete line of double wall insulated duct & fittings, each piece is constructed of solid metal outer shell and (either perforated or solid metal) inner shell surrounded by a layer of insulation.

The insulation serves both thermal & acoustical purposes. Our liner insulation is black woven fiber glass 1" thick, 48 Kg /m³ density. Several types of insulation material, densities, thicknesses are available.



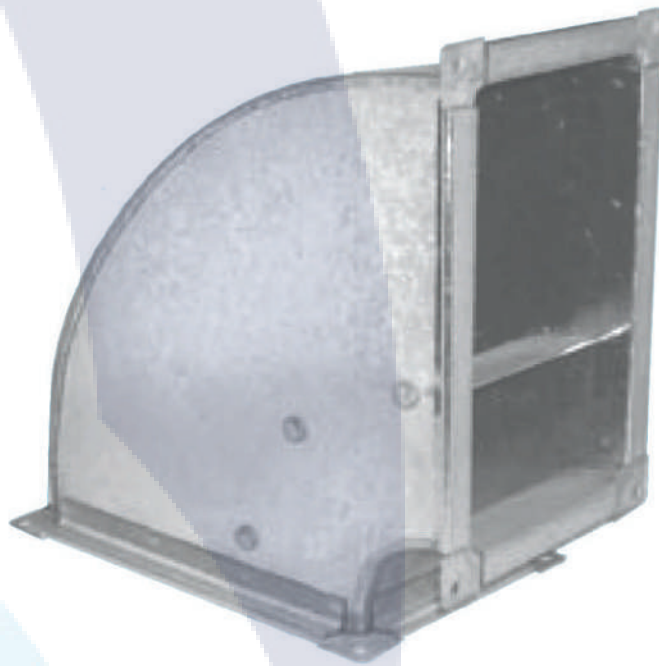
Description:



DUCT PRODUCTS

RECTANGULAR DUCT

Radius Bend with splitter vanes: REV



Description:

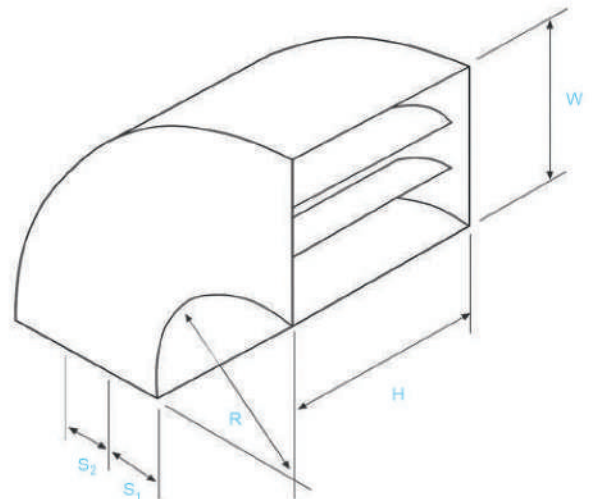
Radius bend with splitter vanes
Throat radius R is less than W (width)

Ordering

Product code: REV - aaa - bbb - ccc - S1 - S2

Type _____
W mm _____
H mm _____
R mm _____
Splitter vane 1 mm _____
Splitter vane 2 mm _____

* For splitter Vanes refer to splitter vanes chart

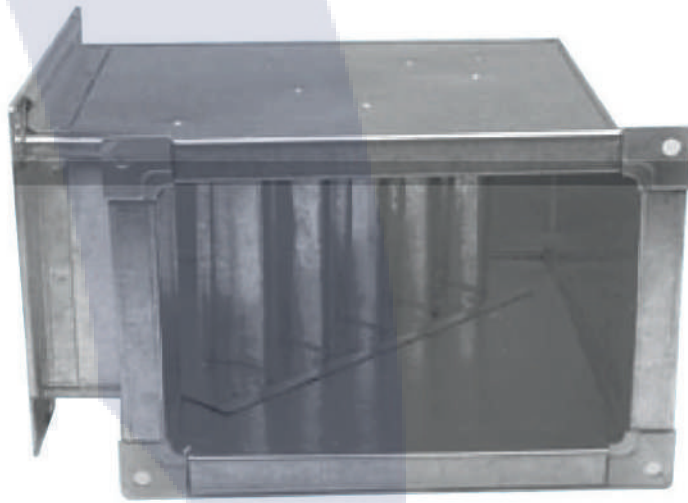


- Beading will be cross broken or straight.
- All fittings are available with acoustic lining.

DUCT PRODUCTS

RECTANGULAR DUCT

Square Throat Bend with Turning Vanes: SQ



Description:

Square throat bend with turning vanes
Standard square Throat length N = 100mm.

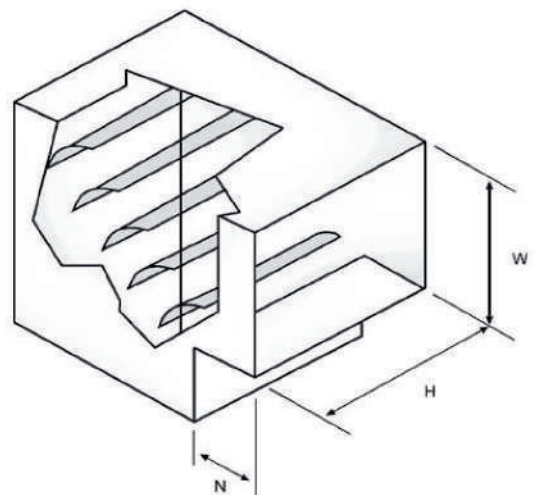
Ordering

Product code: **SQ** - **aaa** - **bbb** - **ccc**

Type _____
Wmm _____
H mm _____
R mm _____

N = Throat, SAMMAN standard is 100 mm but can vary.

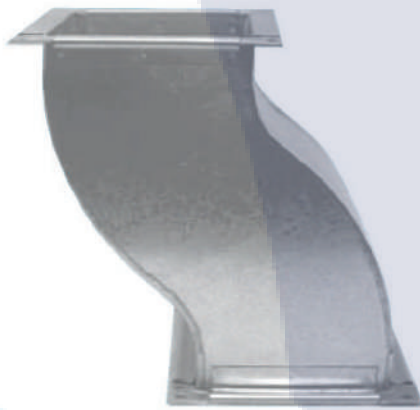
* For turning vanes refer to splitter vanes chart.



DUCT PRODUCTS

RECTANGULAR DUCT

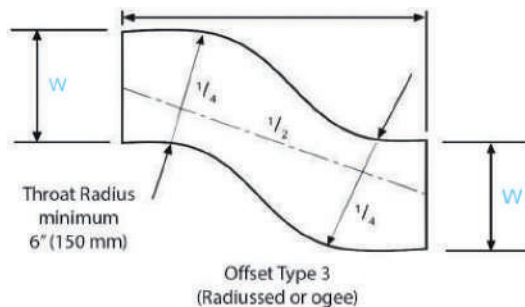
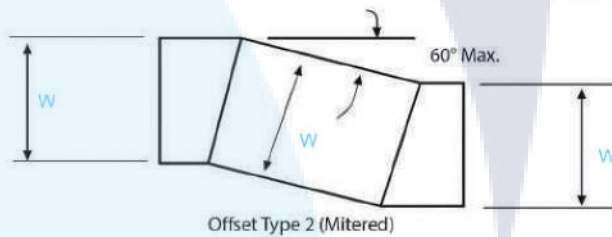
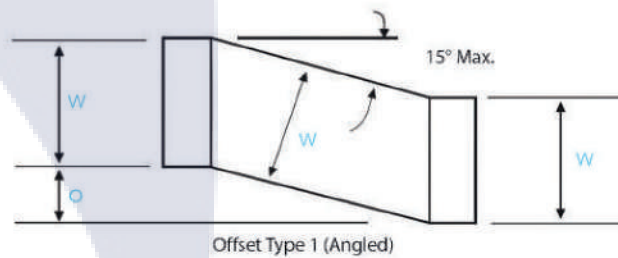
Offset OFF:



Ordering

Product code: **OFF - aaa - bbb - ccc - ddd**

Type _____
 W mm _____
 H mm _____
 O mm _____
 L mm _____

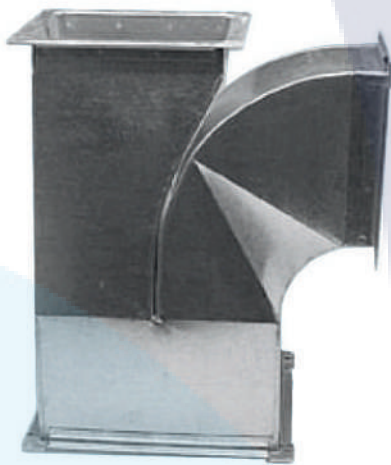


• All fittings are available with acoustic lining.

DUCT PRODUCTS

RECTANGULAR DUCT

R - Fitting: RF



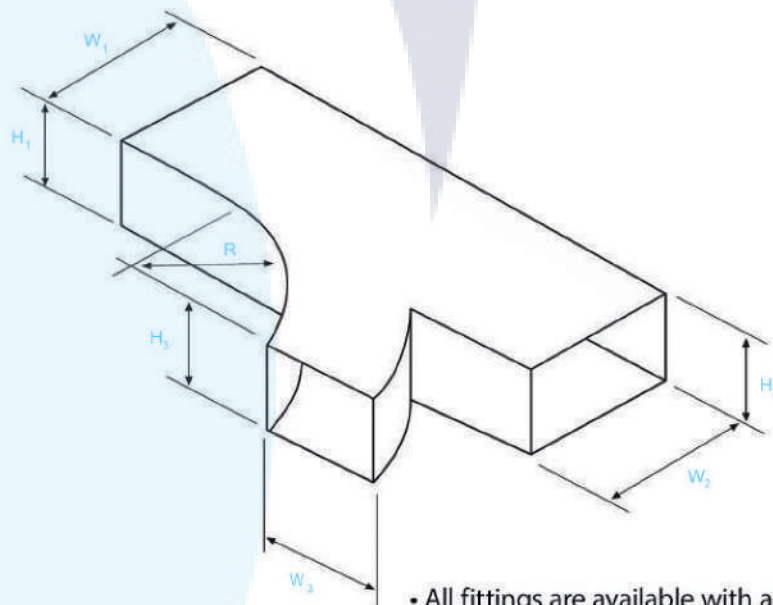
Ordering

Product code: RF - aaa - bbb - ccc - ddd - eee - fff - ggg

Type	RF	aaa	bbb	ccc	ddd	eee	fff	ggg
W ₁ mm								
H ₁ mm								
W ₂ mm								
H ₂ mm								
W ₃ mm								
H ₃ mm								
R mm								

Description:

R - Fitting or parallel flow branches.

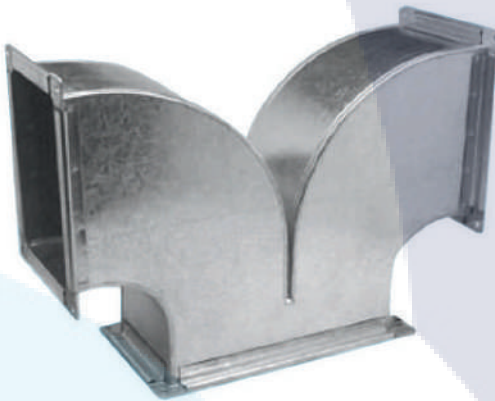


• All fittings are available with acoustic lining.

DUCT PRODUCTS

RECTANGULAR DUCT

Split Band: SE



Ordering

Product code:

RF - aaa - bbb - ccc - ddd - eee - fff - ggg - hhh

Type

W_1 mm

H_1 mm

W_2 mm

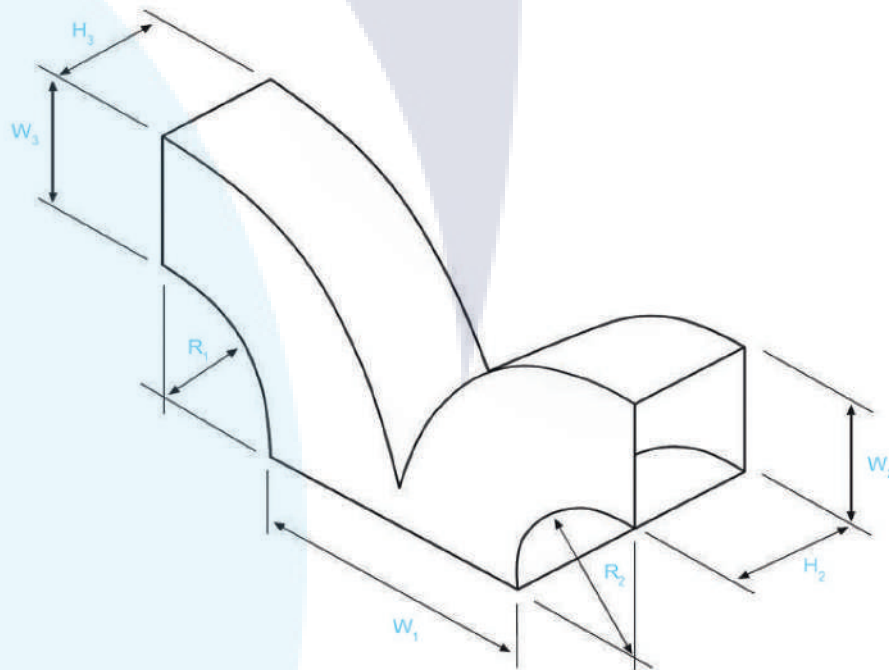
H_2 mm

W_3 mm

H_3 mm

R_1 mm

R_2 mm



• All fittings are available with acoustic lining.

DUCT PRODUCTS

RECTANGULAR DUCT

Assembly Sequence

Maximum space between clips
More than 3" W.G. 6"
3" W.G. Or less 9"



The clamping TDC Clips are installed with 6" wide full coverage TDC Clip tool as shown. For Clip Spacing, see (Recommended clip spacing)

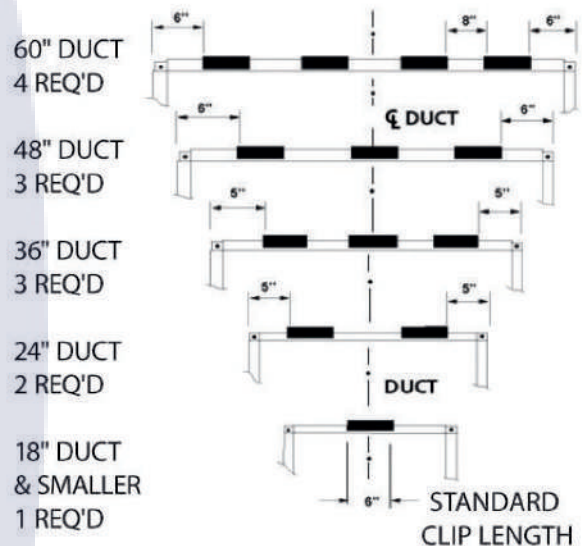
When using TDC in conjunction with slip-on four bolt Connectors, it may be desirable to increase tension on TDC Clip.

To tighten the grip of the TDC Clip to the flange by over bending the long leg of the Clip. Use the forming end of the tool as shown above

CAUTION: Use of a hammer for installation will damage Clip and may cause leakage.

Recommended Clip Spacing

Maximum space between clips
More than 3" W.G. 6"
3" W.G. Or less 9"



DUCT PRODUCTS

BLACK STEEL DUCT

Material of Construction

To supply Kitchen Exhaust Ducts from 1.2mm/ 3.0mm thick, black carbon-steel sheet for concealed ducts, ASTM A 366/A 366M, cold rolled sheets, commercial quality, with oiled, exposed matte finish,

Standard Length of the Ducts, maximum will be 1200mm.

Longitudinal Joints will be seam closed using Pittsburgh Seam / Welding

M S Iron Angles will be Stitch welded to the Black Steel ducts

Black Mild Steel RSA Connectors with holes for bolting:

40 x 40 x 3 RSA

40 x 40 x 4 RSA

40 x 40 x 5 RSA

50 x 50 x 4 RSA

Reinforcement Angles will be provided, based on the customer requirement.

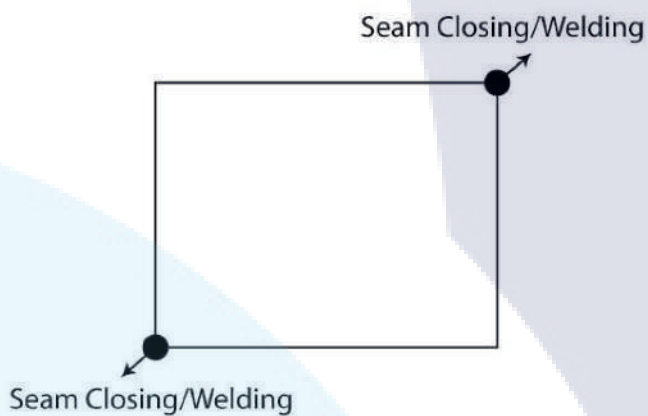
Black Steel Ducts will be duly painted with Epoxy Primers.



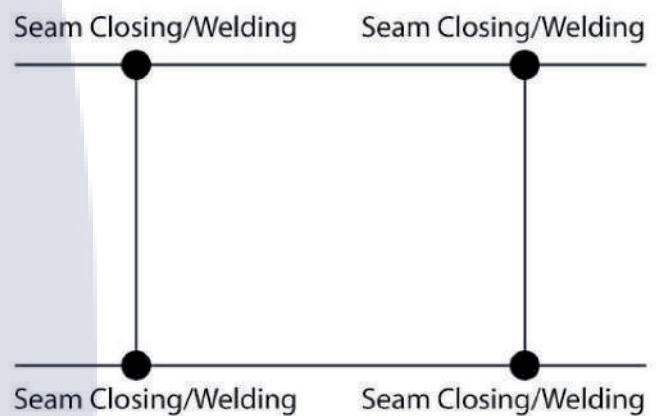
METHOD OF CONSTRUCTION

Longitudinal

Type I



Type II



Transverse Joints



DUCT PRODUCTS

FIRE RATED DUCT



Approved Installer Certificate

This is to certify that

M.U. Al Samman Est.

PO Box 132934
Jeddah
Saudi Arabia

Is an Is an Approved Fabricator and Installer of Firemac Gulf DMCC fire resistant ductwork systems, having met the requirements of certification for:

**FIREMAC FM FIRE DUCTS
ONE TO FOUR HOUR FIRE RESISTANCE**

Having completed training with a Firemac Gulf approved trainer on 27/03/16

Signed



Name: David Roulstone
Position: Operations Director
Company: Firemac Gulf DMCC
Reference: MUAS Firemac Approval
Issue Date: 28/03/16
Expiry Date: 27/03/18



Firemac Gulf DMCC, PO Box 336262, 3802-1, 38th Floor, Tower AA1, Mazaya Business Avenue, JLT, Dubai, United Arab Emirates
Tel: +971 (0) 4278 4703
Trading License Number: DMCC-070136
Registration Number: JLT4388

FIREMAC FM FABRIC DUCT WORK SYSTEMS

TECHNICAL TRAINING

FIREMAC FM60 / FIREMAC FM120 / FIREMAC FM240



DUCT PRODUCTS

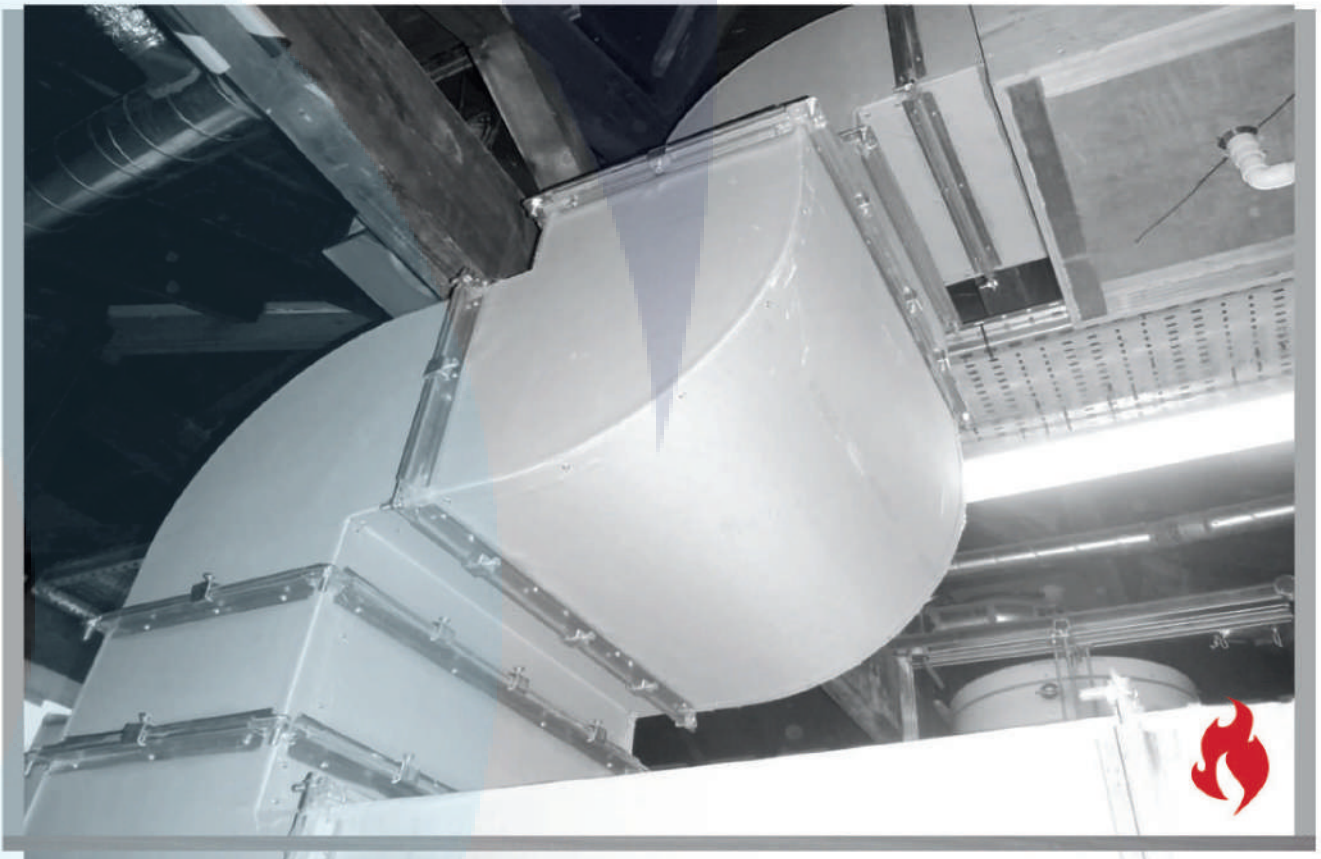
BLACK STEEL DUCT

PURPOSE OF FIRE RESISTANT DUCT WORK

New buildings must be divided into fire compartments in order that the spread of fire in the building is contained.

Weak points include ventilation ductwork passing from one compartment to another

Use of properly constructed fire resistant duct systems will prevent the fire from entering the ductwork, and prevent fire from using ductwork system to break out into other areas.



DUCT PRODUCTS

BLACK STEEL DUCT

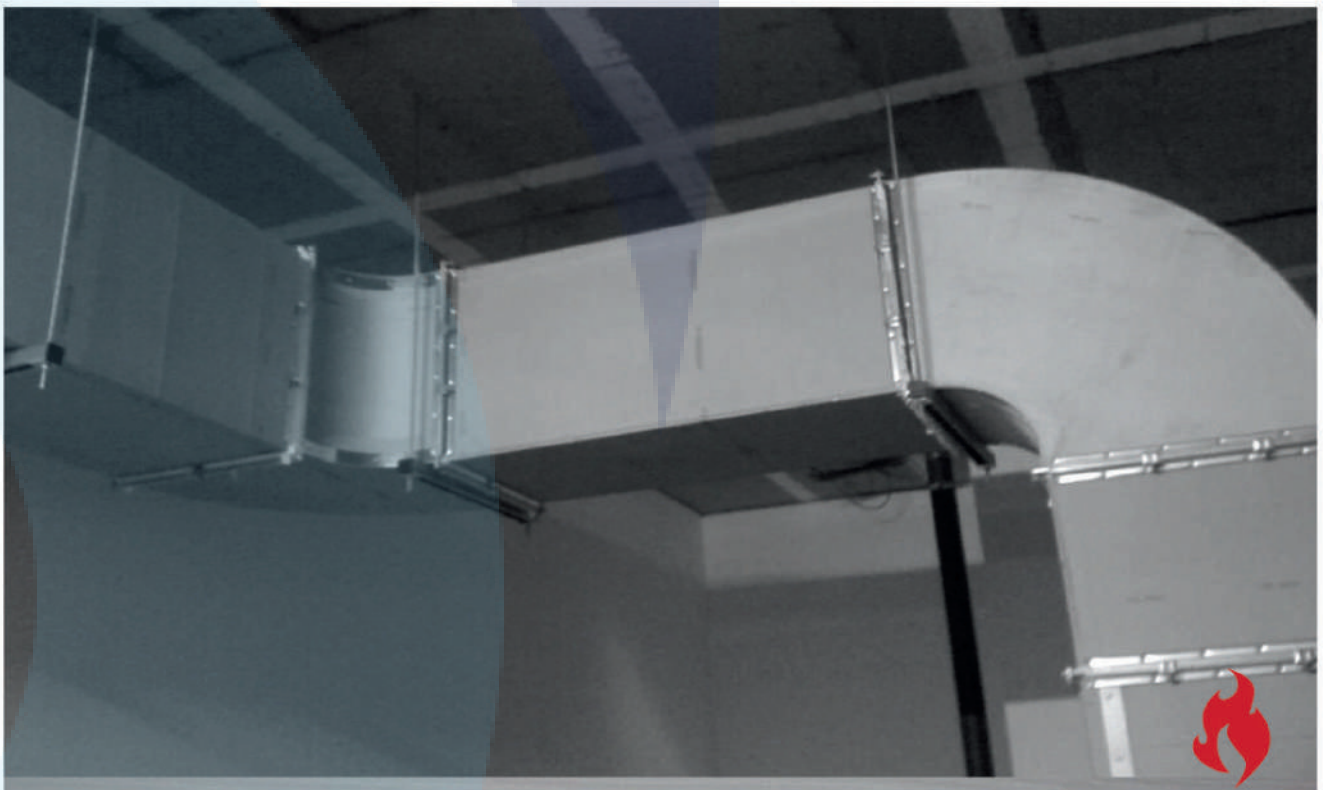
FIREMAC FM60, FIREMAC FM120, FIREMAC FM240,

Firemac FM systems is a glass fibre cloth that is bonded to steel ductwork to give fire resistance for one — four hours

Fixed to ductwork at point of fabrication by ductworkers themselves

Physical fixing using adhesive

Mechanical fixing using rivets and / or speed screws



DUCT PRODUCTS

VOLUME CONTROL DAMPER

Rectangular Volume Control Dampers

Flange Type

MSC-RD-F / MSC-RD-S

Multi-Leaf volume control dampers have been specially designed to be used in Ventilation systems to control air flow and air pressure.

Volume control dampers are available for rectangular, Circular and Flat Oval Ducts.

The Frame is Rigid and Robust Assembly formed from Galvanized Steel Sheet, G90, 150mm X 35mm X 1.2mm.

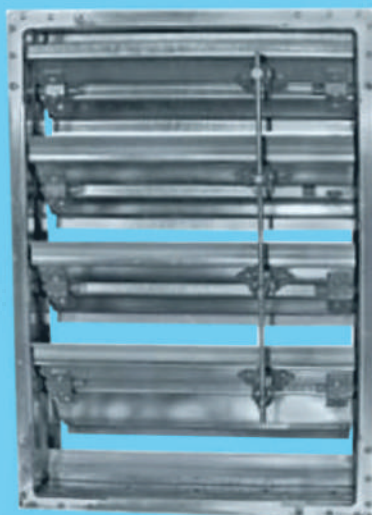
The **Blades** are formed from 20G (1.00mm)-18G (1.20MM), Galvanized Steel Sheet, G90, with Triple V profile for the good interlocking.

The **Bushings** are self-Oiling Bronze Bushings 12.7mmDiameter

The **Bearing** Pins are plated steel rod of 12.7mm Diameter

The **Blade Brackets** and Set Scraps are from Zinc Plated

Side seals are provided to have a minimum clearance and for smooth operation of dampers



Parallel Blade Dampers (MSC-RD-F)



Opposed Blade Dampers (MSC-RD-F)

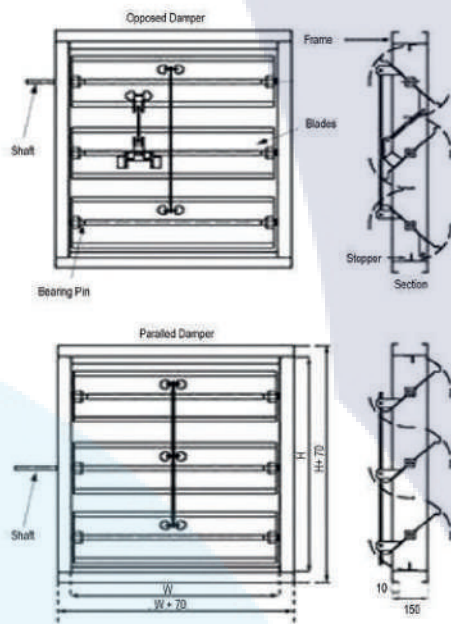


Damper Blade Assembly

DUCT PRODUCTS

VOLUME CONTROL DAMPER

Section Details



W,mm	H,mm	No of Blades
100	100	1
150	150	1
200	200	1
250	250	1
300	300	1
350	350	2
400	400	2
450	450	2
500	500	3
550	550	3
600	600	3
650	650	4
700	700	4
750	750	4
800	800	5
850	850	5
900	900	5
950	950	6
1000	1000	6

Available Model: Normally of Parallel Blade Type, and Opposed Blade type on request.

Quadrant: Manual Quadrant

Dampers upto 300mm height are with Single Blade construction, and Above 300mm Height will be with Multi Blade Dampers.

Damper size up to 1000mm X 1000mm is manufactured in single section, and Bigger sizes will be in multiple sections.

Ordering

Product code: MSC - RD - F **aaa** **bb**

Type
Width
Height

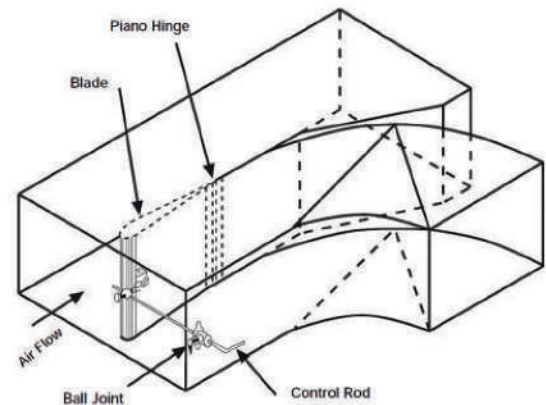
Type: MSC-RD-F, Rectangular volume Control Damper with TDC flange

Type: MSC-RD-S, Rectangular Volume Control Damper with Slip and Drive connector

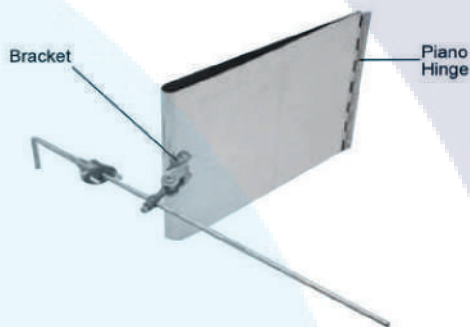
DUCT PRODUCTS

VOLUME CONTROL DAMPER

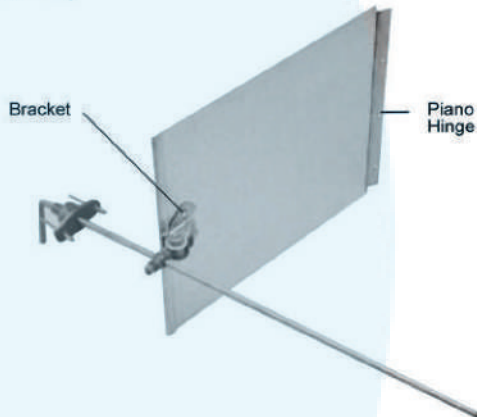
Splitter Damper



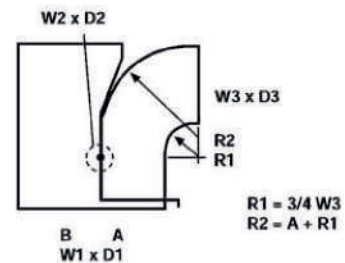
Aerofoil Blade Splitter Damper



Single Blade Splitter Damper (Standard)



Dimensions



Splitter Damper Length is Equal to 1.5 A

Where: A = 100 mm Min.

Trunk may be divided using:

$$A = \left(\frac{W3 \times D3}{W2 \times D2 + (W3 \times D3)} \right) W1$$

$$B = \left(\frac{W2 \times D2}{W2 \times D2 + (W3 \times D3)} \right) W1$$

One Rod Up To 610 MM depth (D₁)
Two rods 635 MM to 1525 MM depth (D₁)
Three rods above 1525 MM depth (D₁)

DUCT PRODUCTS

VOLUME CONTROL DAMPER

MS4104, MS4109, MS4604, MS4609, MS8104, MS8109 Fast-Acting, Two-Position Actuators FOR FIRE/SMOKE CONTROL APPLICATIONS

Honeywell

SPECIFICATION DATA



Description

The MS4104, MS4109, MS4604, MS8104, MS8109 Fast-Acting, Two-Position Actuators are spring return direct coupled actuators (DCA) with an integral junction box for on/ off damper control. The actuator accepts an on/off signal from a single-pole, single-throw (spst) controller. Reversible mounting allows actuator to be used for either clockwise (cw) or counterclockwise (ccw) spring return and are designed to operate reliably in smoke control requiring Underwriter's Laboratories Inc. UL555S ratings up to 350 °F.

FEATURES

- 30 lb-in. (3.4 N•m) or 80 lb-in. (9 N•m) minimum driving torque at 350 °F (176 °C).
- Reversible mounting facilitates use in either clockwise (cw) or counterclockwise (ccw) spring rotation.
- Integral spring return ensures level of return torque.
- Stainless steel internal spring.
- Fifteen-second spring return timing.
- No special cycling required during long-term holding.
- No audible noise during holding.
- Patent pending design eliminates need for limit switches to reduce power consumption.
- Models available for 24, 120 and 230 Vac.
- Ninety-five degree angle of rotation.
- Actuator holds rated torque at reduced power level.
- Die-cast aluminum housing.
- Housing design allows flush mounting to damper.
- Designed to operated reliably in smoke control systems requiring Underwriter's Laboratories Inc. UL555S rating up to 350F.
- Models available with SPST position-indicating switches (7°, 85° stroke).

DUCT PRODUCTS

FIRE AND SMOKE DAMPER

SPECIFICATIONS

Models:

Model	Voltage (Vac)	Internal Auxillary Switches	Torque in lb-in (N.m)
MS4104F1010	120	None	30 (3.4)
MS4104F1210	120	2 SPST ^a	30 (3.4)
MS4109F1010	120	None	80 (9)
MS4109F1210	120	2 SPST ^a	80 (9)
MS4604F1010	230	None	30 (3.4)
MS4604F1210	230	2 SPST ^a	30 (3.4)
MS4609F1010	230	None	80 (9)
MS4609F1210	230	2 SPST ^a	80 (9)
MS8104F1010	24	None	30 (3.4)
MS8104F1210	24	2 SPST ^a	30 (3.4)
MS8109F1010	24	None	80 (9)
MS8109F1210	24	2 SPST ^a	80 (9)

A Internal switches are designed to pass UL555S requirements (at 350°F for 30 minutes) and are intended for use as position indication.

Electrical Ratings:

Power Input:

MS4104F, MS4109F: 120 Vac ± 10%, 60 Hz.
MS4604F, MS4609F: 230 Vac ± 10%, 50/60 Hz.
MS8104F, MS8109F: 24 Vac + 20%, 10%, 50/60 Hz.

Power Consumption:

MS4104F: Running: 0.18A, 18W. Holding: 0.11A, 9W
MS4109F: Running: 0.25A, 23W. Holding: 0.13A, 7W
MS4604F: Running: 0.13A, 18W. Holding: 0.10A, 11W
MS4609F: Running: 0.13A, 23W. Holding: 0.09A, 7W
MS8104F: Running: 16VA. Holding: 8VA
MS8109F: Running: 23VA. Holding: 7 VA

Electrical Connections:

Power Lead Wires:

MS410xF and MS460xF: 32 inches (0.8m), 18 AWG
MS810xF: 39 inches (1m), 18 AWS
Switch Lead Wires: 18 AWG, 2 color coded leads.

Controller Type:

MS4104, MS4109: Line voltage (120 Vac), two-position, spst (Series 40).
MS4604, MS4609: Line voltage (230 Vac), two-position, spst (Series 40).
MS8104, MS8109: Low voltage (24 Vac), two position, spst (Series 80).

Device Weight:

5 lb (2.3 kg).

Noise Rating (Maximum):

Holding: 20 DBA at 1m (no audible noise).

Temperature Ratings:

Ambient: 0°F to 130°F (-18°C to 55°C).
Shipping and Storage: -40°F to 140°F (-40°C to 60°C).

IMPORTANT

The actuator is designed to meet UL555S standards at 350°F (176°C).
The actuator must be tested with the damper to achieve this rating.

Humidity Ratings:

5% to 95% RH noncondensing.

Stroke:

95° ± 3°, mechanically limited.

Torque Rating (at rated voltage):

Spring Return:

MS4104F, MS4604F, MS8104F: 30 lb-in. (3.4 N·m).
MS4109F, MS4609F, MS8109: 80 lb-in. (9 N·m).

Stall Maximum:

MS4104F, MS4604F, MS8104F: 150 lb-in. (17 N·m).
MS4109F, MS4609F, MS8109: 240 lb-in. (27 N·m).

350oF Driving:

MS4104F, MS4604F, MS8104F: 30 lb-in. (3.4 N·m).
MS4109F, MS4609F, MS8109: 80 lb-in. (9 N·m).

Timing (At Rated Torque and Voltage):

Drive Open: 15 seconds typical.
Spring Close: 15 seconds typical.

Design Life (at Rated Voltage):

30,000 full stroke cycles.

Cycling Requirements:

The actuator and the internal spring are designed to require
No special cycling during long-term holding.
Honeywell recommends following all local, state and National
Codes for periodic testing of the entire smoke control system. Refer to
National Fire Protection Association (NFPA) National Fire Codes®:
NFPA90A, NFPA90A, NFPA2A and NFPA 92B for your application.
NFPA recommends periodic examination of each fire/smoke damper
(semi-annually or annually) to ensure proper performance.

Minimum Damper Shaft Length:

2 in. (51 mm).

Mounting:

Round 1/2 inch shaft adapter with 1/4 inch set screws.
Threads: ¼-20 UNC-2A
Material: Alloy Steel hardened to HRC 45-53
Thread Lock: Nylon Patch

IMPORTANT

Honeywell does not recommend using linkages with these actuators
because side-loading of the output Hub reduces actuator life.

Environmental Protection Ratings:

NEMA, IP40.

Accessories:

205649 Mounting Bracket (not supplied with actuator).

DUCT PRODUCTS

FIRE AND SMOKE DAMPER

Approvals:

	MS4104F, MS4109F	MS4604F, MS4609F	MS8104F, MS8109F
UL/cUL	X	X	X
UL60730	X	X	X
CE	X	X	X
C-Tick	X	X	X

Wiring:

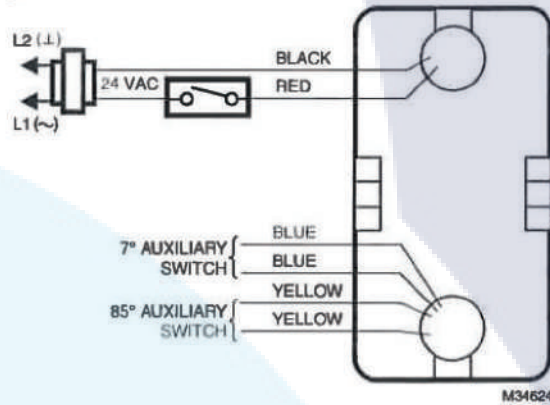


Fig. 1. Typical 24 Vac wiring.

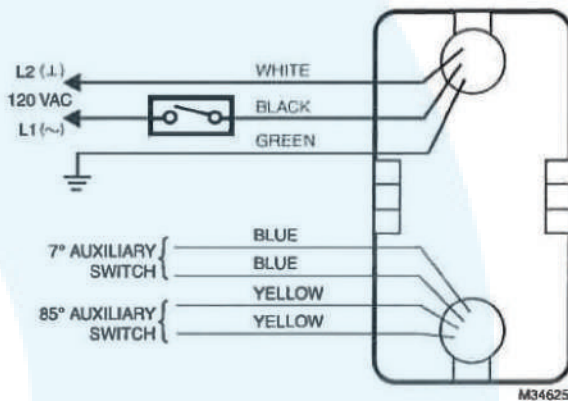


Fig. 2. Typical 120 Vac wiring.

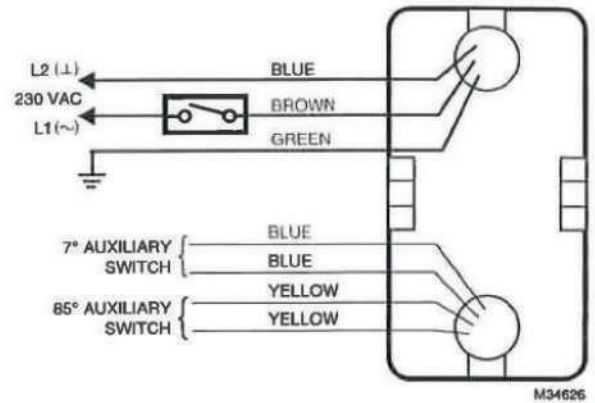
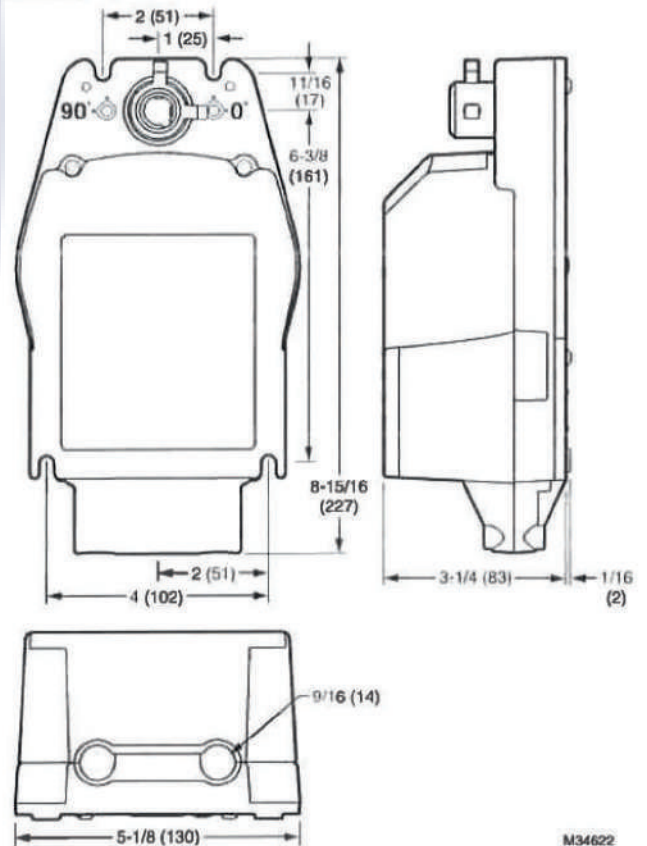


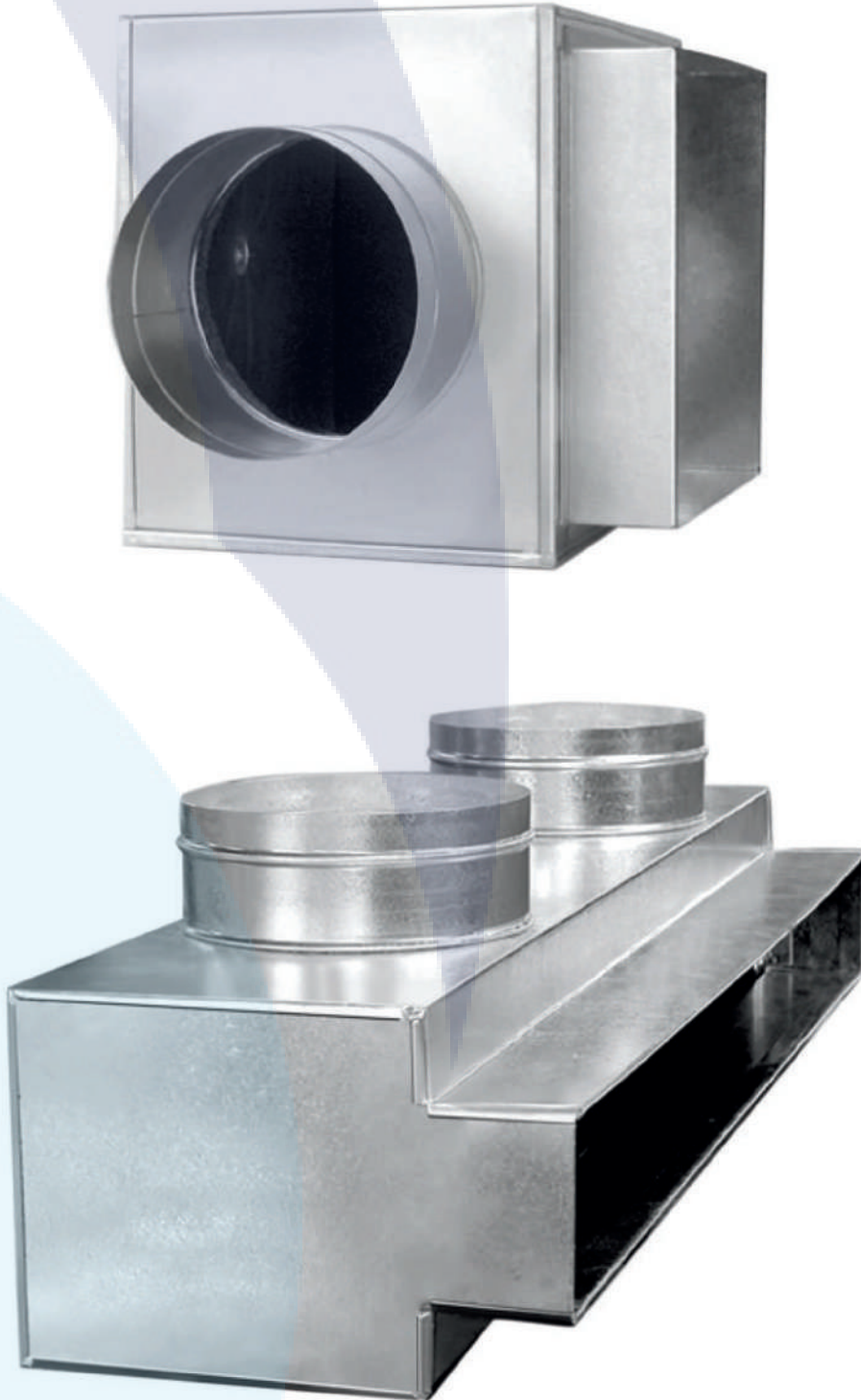
Fig. 3. Typical 230 Vac wiring.

Dimensions:



DUCT PRODUCTS

PLENUM BOX



DUCT PRODUCTS

PLENUM BOX

SAMMAN PLENUM BOX:

Construction:

Frame: 24, 22 or 20 Gauge Galvanized steel Sheet

Spigots: Circular Spigots of 75mm Length As standard. Square, Rectangular Shaped Spigots are Available as Options

Optional Accessories: Volume Control Damper

Description:

Fabricated from 24, 22, or 20 Gauge Galvanized Steel Sheet.

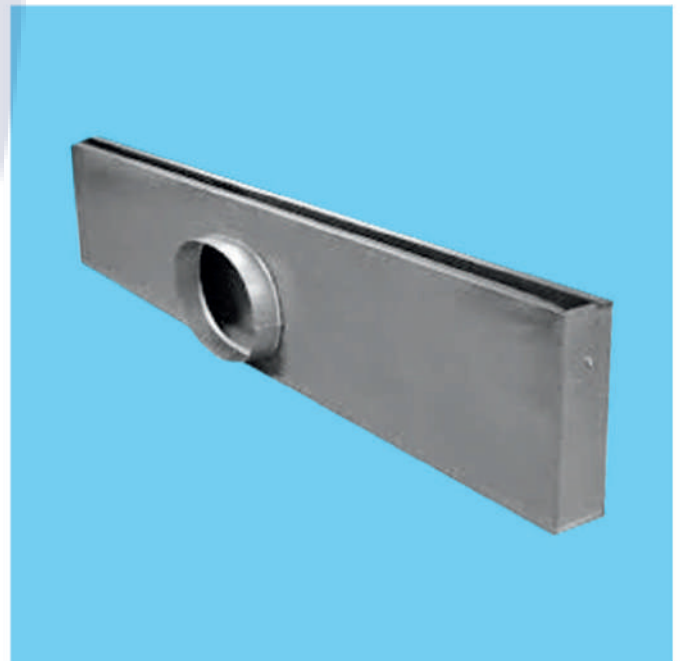
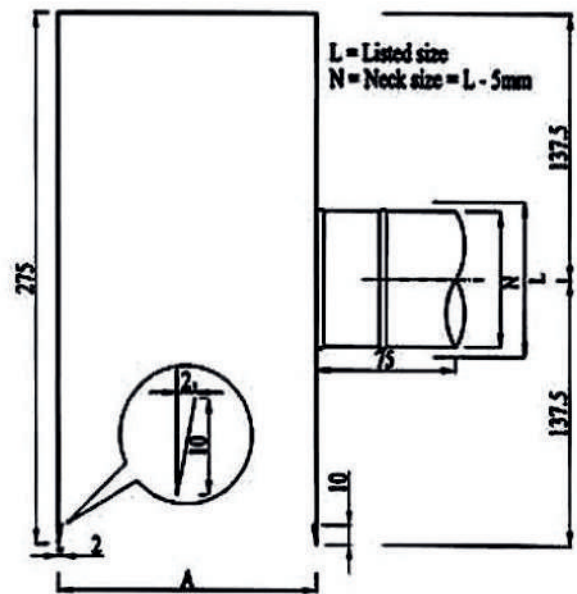
Circular Spigots of Required Diameter and Standard Length of 75mm would be fixed to The Plenum Box. Square, Rectangular Shapes Spigots are Available.

Plenum Boxes with side inlet are standard. Other Positions are Available as per The Site to Suit Clients' Specifications.

Plenum Boxes Have Hemmed Edge at the Opening For Fixing Universal Mounting Brackets.

Plenum Boxes of Length of Up to Two Meters Can Be Manufactured with single Spigot. For More Than 2 Meters Plenum Boxes will be arranged with Multiple Spigots.

Volume Control Dampers Can be Fitter to the Spigots On Request.



DUCT PRODUCTS

PLENUM BOX

SAMMAN PLENUM BOX:

Insulated Plenum Box:

Construction:

Frame: 24, 22 or 20 Gauge Galvanized steel Sheet
 Spigots: Circular Spigots of 75mm Length As standard. Square, Rectangular Shaped Spigots are Available as Options
 Optional Accessories: Volume Control Damper

Insulation:

25mm thick, 24 Kg/Cub Meter density Fiber Glass Insulation as Standards. Other density Is Optional

Description:

Fabricated from 24, 22, or 20 Gauge Galvanized Steel Sheet.

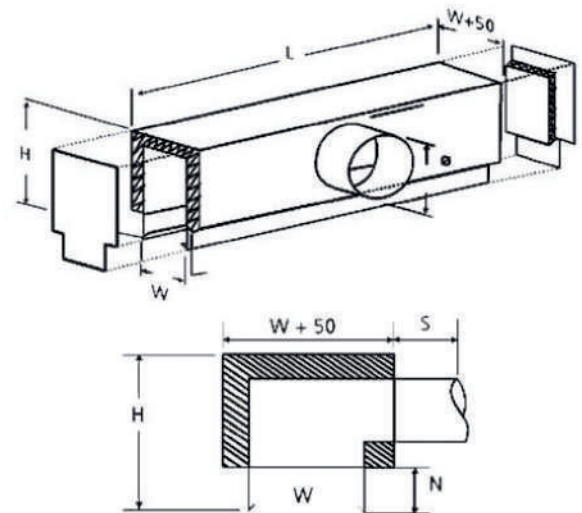
Circular Spigots of Required Diameter and Standard Length of 75mm would be fixed to The Plenum Box. Square, Rectangular Shapes Spigots are Available.

Plenum Boxes with side inlet are standard. Other Positions are Available as per The Site to Suit Clients' Specifications.

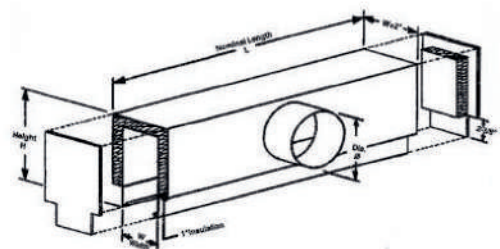
Plenum Boxes Have Hemmed Edge at the Opening For Fixing Universal Mounting Brackets.

Plenum Boxes of Length of Up to Two Meters Can Be Manufactured with single Spigot. For More Than 2 Meters Plenum Boxes will be arranged with Multiple Spigots.

Volume Control Dampers Can be Fitter to the Spigots On Request. Internally Insulated with 25 Kg/M3 density Glass Insulation.



Liner Slot Diffuser Plenum Sizes



No of Slots	1	2	3	4	5	6
Height, mm	234	259	309	309	359	359
Width, mm	57	90	124	157	192	225
Dia, mm	125	150	200	200	250	250
Spigot Length, mm	100	100	100	100	100	100

DUCT PRODUCTS

ACCESS DOOR

Access Door with Piano Hinges



Construction:

Frame and door panels: Made of 22 gauge galvanized steel sheet.

Insulation of door panel: 25 mm thick, 24 or 48 kg/m³ density fiber glass as standard. Other insulation specifications are optional.

Description:

Frame and door panels are fabricated from 22 gauge galvanized steel sheet.

Frame is provided with 3 mm thick neoprene gasket all around to avoid air leakage.

Door panel is internally insulated with 25 mm thick, 24 or 48 kg/m³ density fiber glass for thermal and acoustic insulation.

Door frame is provided with single cam lock for air tight door closure.

Structure is designed to withstand high pressure differences.

Sizes are available from 150 x 150 mm to 600 x 600 mm with an increment of 50 mm.

Access doors offer quick easy installation where duct access required.

Applicable in air conditioning plant rooms, plenums, air handling units and near fire dampers.

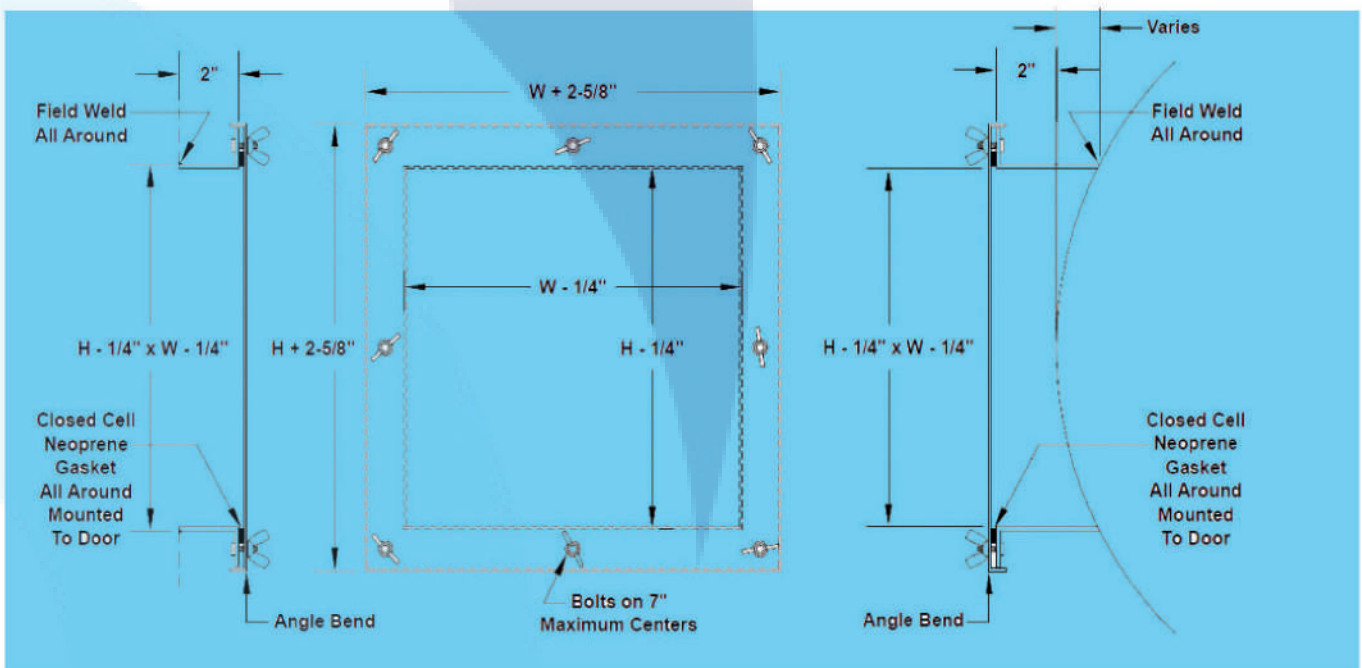
DUCT PRODUCTS

ACCESS DOOR

Access Doors for Grease Hood / Kitchen Exhaust Ducts

Construction Features:

Same thickness as the duct (16G Carbon Steel or 18G Stainless Steel)
 Neoprene Gaskets all around Mounted to Door
 Grease Tight Assembly
 Carbon Steel Fasteners or Stainless Steel Fasteners
 Doors mountings shall ensure a proper, secure fitting over openings
 Access Doors shall be Field Welded all around with the ducts
 Fixed with Removable Handle



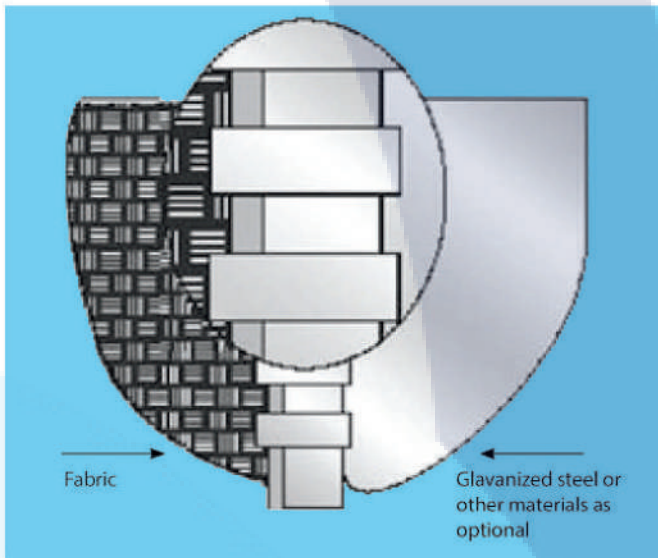
Access Doors for Rectangular Ducts

Access Doors for Round Ducts

DUCT PRODUCTS

FELEXIBLE CONNECTORS

Flanged Seam



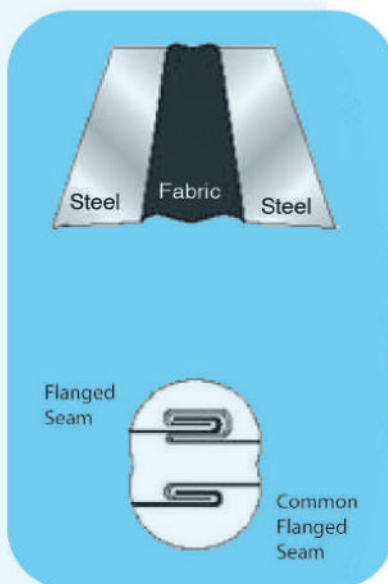
The double flanged seam gives an exceptional strength to the connection between steel and fabric. The above seam is used in all our duct connectors.

Description

Flexible Duct Connectors are Used to eliminate duct system noises and vibrations for industrial and commercial applications.

The Basic use is to isolate the vibration and noises to the source with an air tight flexible joint consisting of a fabric fastened to steel metal on both sides. The flexible connector is fixed between the A/C equipment or fan and the ductwork

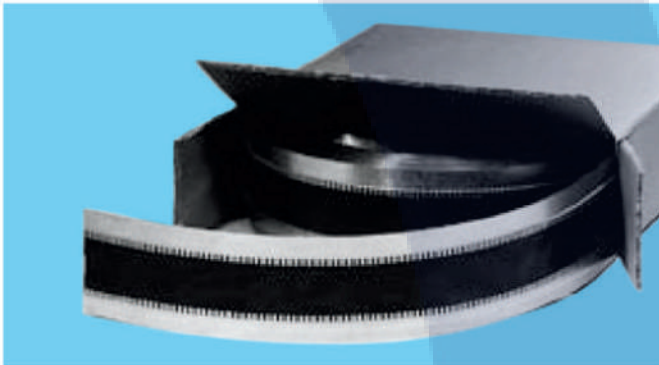
Various cloth types, cloth widths and steel widths are available in order to meet of the installation requirements at job sites.



DUCT PRODUCTS

FELEXIBLE CONNECTORS

Type Vinyl - DCV



Description & Application

Flexible Duct Connector with a PVC Polyester coating is suitable for applications with high requirements to the moisture resistance and good mechanical and chemical resistance. the connector is appropriate for Round, Oval and Rectangular air ducts. It can be shaped easily with a minimal percentage of waste.

Ordering

Product code: DCN - 45X60X45 - 22 - G

Type _____
Size _____
Gauge _____
Metal _____

Metal available
G = Galvanized
S = Stainless
A = Aluminium

Specifications

Specific Gravity:

675 gr/m²

Temperature range (continuously)

From -25 °C to +70 °C.

Fabric:

PVC coated polyester (PES)

Metal:

Available in galvanized, Stainless and aluminium

Moisture Resistance:

High

Mechanical Resistance:

Good

Color:

Black

Chemical Resistance:

Refer Chemical Resistance Data

Fire Resistance:

Ref Fire Resistance Data

Packing

Standard Length: 25 meter per roll.

Standard Sizes:

Steel	Fabric	Fabric
35 mm	60 mm	35 mm
45 mm	60 mm	45 mm
70 mm	70 mm	70 mm
70 mm	100 mm	70 mm
70 mm	125 mm	70 mm
70 mm	150 mm	70 mm

DUCT PRODUCTS

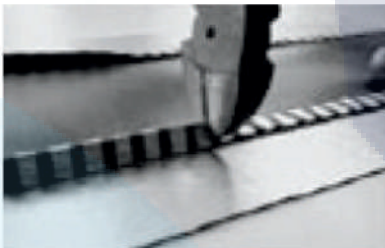
FELEXIBLE CONNECTORS

Mounting Instructions

Mounting Instructions for Flexible Connectors



At a notch, cut a length equivalent to the perimeter plus 5 to 6 cm.



Make a cut at the edge of the lifted seam section



Coat the cloth with its appropriate adhesive



Press together firmly



Lift the seam outward to a right angle.



Bend down the seam whilst ensuring that the cloth remains fastened



Join both sides by adhesive and or stitching



Spotweld the steel.

General Notes:

Make sure that the notched side faces outward and that the position of the joint is not at the corner.

DUCT PRODUCTS

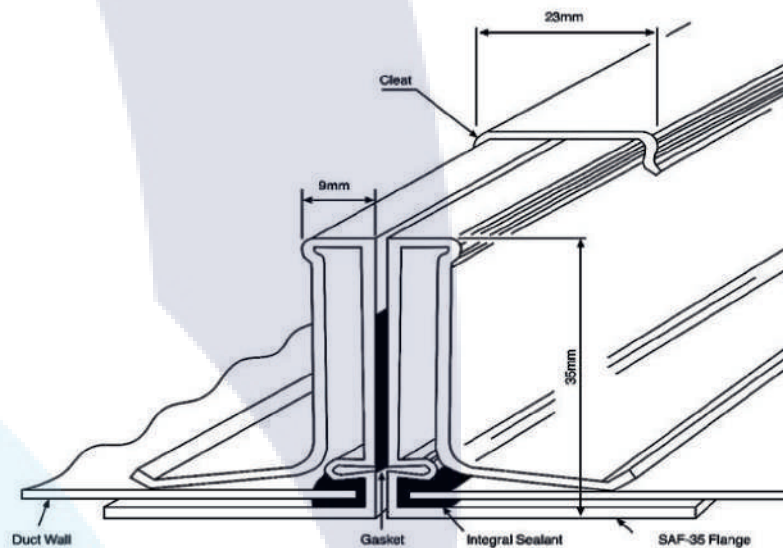
FLANGES & CORNERS

Flanges

Slide on Flange System

SOF - 35

SOF - 35 Flange Joint System



Description:

SAMMAN Slide on Flange is Manufactured of roll Formed Galvnized steel of lockforming quality conform to ASTM A653 with G90 zinc coating and can be supplied in gauge 22 and 20.

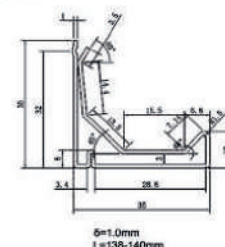
MSC - SOF - 35, has been recommended and approved by DW 144 and SMACNA Standards, 1995 for use as a duct Joint for low, Medium and high pressure systems. for more details please contact [SAMMAN](#).

MSC - SOF - 35 can be supplied with integral mastic (Sealant) to provide perfect seal between duct and flange.

SOF - 35 Slide on Flange



Dimensions



DUCT PRODUCTS

FLANGES & CORNERS

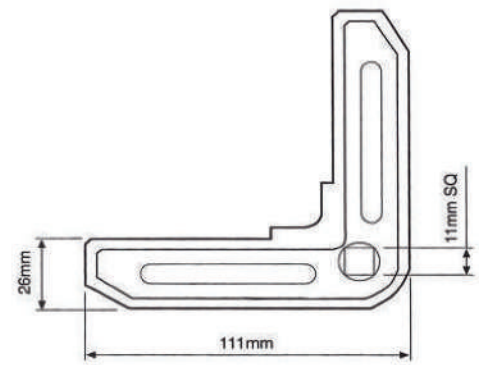
Flanges

Corner Cleat & Clamp

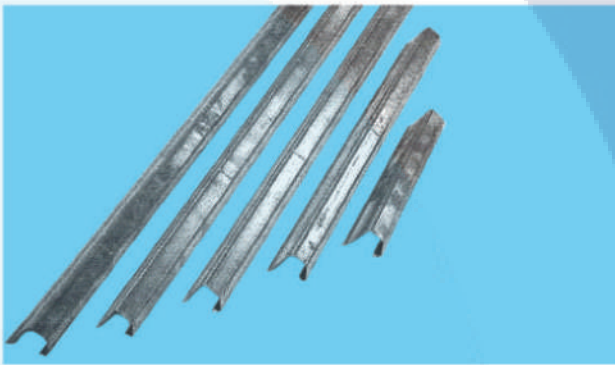
Corner



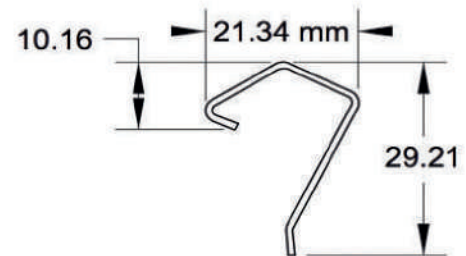
Dimensions



Cleat



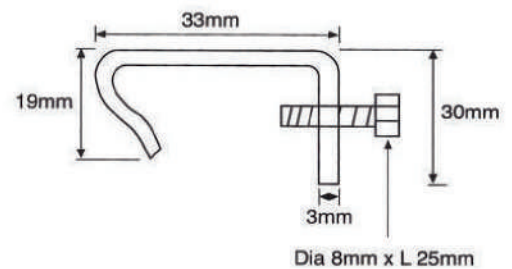
Dimensions



Clamp



Dimensions



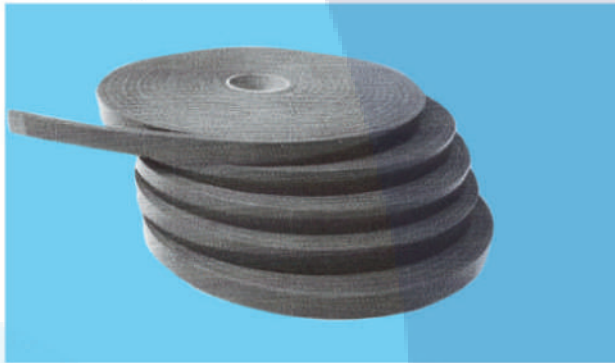
DUCT PRODUCTS

FLANGES & CORNERS

Flanges

Gaskets, Bolts & Nuts

GT - Tape



Description:

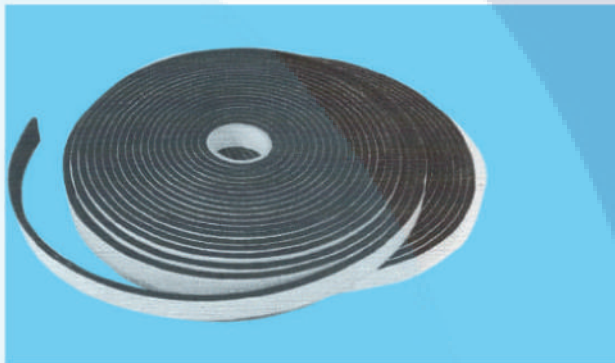
The Gasket Tape (GT) is manufactured out of polyethylene form with one side self adhesive and is appropriate for longlife in combination with a high air humidity and chemical inertness.

Standard Length: 10 meter per roll.

Type & Size:

GT 6/19mm 6mm thick, 19mm wide, 10 roll per bag.

ET



Description:

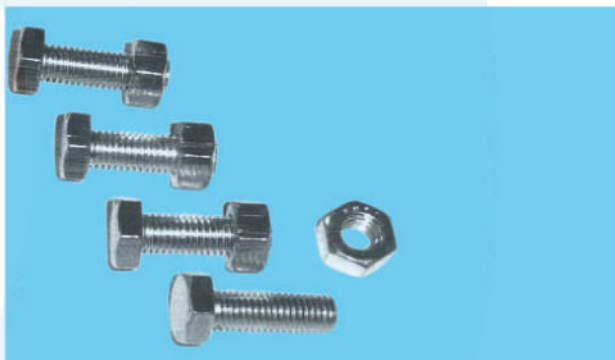
ET is an EPDM/Neoprene modified elastomeric closed cell self-adhesive form gasket tape for cooling and heatign air duct connections to prevet air leakage, reduce vibration/noise and also serves as thermal insulation to prevent condensation and heat transfer. With acrylic presure sensitive ashesive. ET is easily instaled on the surface of the connection Joint.

Standard Length: 10 meter per roll.

Type & Size:

ET052010 6mm thick, 19mm wide.

Blots & Nuts



Description:

Bolts & Nuts are built of galvanized steel hexagonal cap screw full thread with galvanized hexagonal nut.

Bolts = M10 x 30MM

Nuts = M10

Washers = M10

Bolts = M8 x 19MM

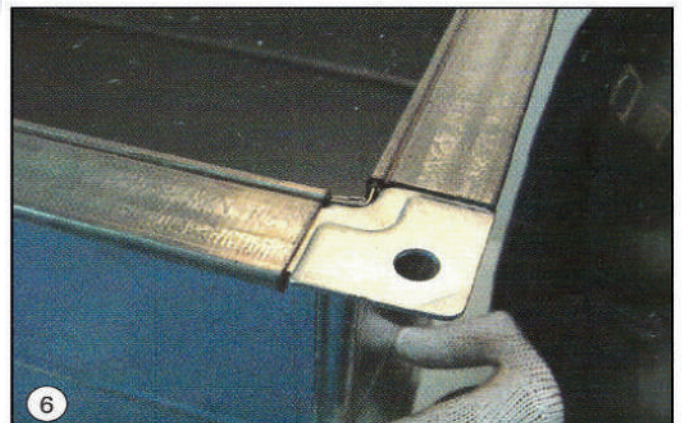
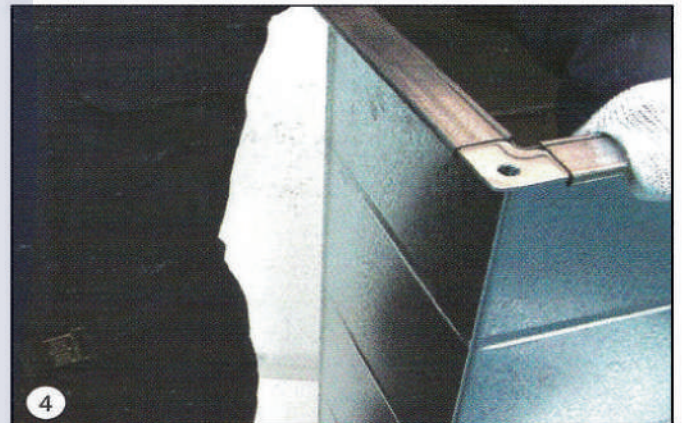
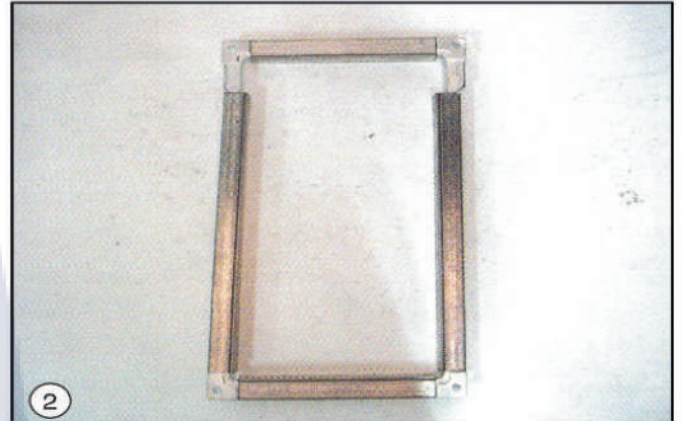
Nuts = M8

Washers = M8

DUCT PRODUCTS

FLANGES & CORNERS

Flange Assembly Steps



DUCT PRODUCTS

DUCT SEALANT

Duct Sealant



Description:

STAR ACRYSEAL is fire retardant, aqua based, vapor barrier sealant for low, medium, and high pressure or high velocity-metal, fiberglass and flexible heating and air conditioning air duct. It is specially formulated to meet Middle East weather condition. It is highly elastic in nature. It has excellent adhesion to metal, aluminum, etc. This exhibits excellent strength, flexibility and resistance to heat and cold. It performs as tough and flexible adhesive and sealant, forming a durable seal against air leakage.

STAR ACRYSEAL does not contain Asbestos, Lead, Mercury or Mercury Copounds.

PHYSICAL & CHEMICAL RESISTANCE

Highly resistant to mold, mildew, water, extreme temperature changes and aging. Resistant to oil or grease and mildly resistant to diluted alkalis and acids.

CONFORMS TO

ASTM C-411 (Hot Surface Performance of High Temperature Thermal Insulation)
ASTM C-732 (Aging Effects of Artificial Weathering on Latex Sealants)
ASTM D-2202 (Slump Test)

CAUTION

Crystalline Silica. Eye contact may cause irritation. Prolonged skin contact may cause irritation. No expected harmful effects from inhalation of vapors.

STORAGE & SHELF LIFE

Store under cover, protect from direct sunlight and high temperature (>30°C). Shelf life is up to 12

Base	Synthetic resin
Color	White/Grey
Appearance	Smooth paste, free of particles
Density	1.6 ± 0.5
Tack free time, minutes	4-8
Viscosity Flow ASTM C 639	Non-Sag
Application temp.	Min 5°C
Flash Point	Non flammable
Bead Consistency	Non-Sag bead free of air bubbles
Adhesion on Ceramic, Concrete, Mild steel	Good

Packing

When caulking gun is used it is recommendable to stroke the duct sealant to be sure to get a good contact for the best results; WDS - 606 is a water-based duct sealant without any solvents, hands & tools can be cleaned with water. WDS - 606 has been proven against wet & somewhat dirty materials, however, we advise a clean surface for the best

Packing

1 Box of WDS - 606 = 25 cartridges each 400 grams.

DUCT PRODUCTS

DUCT SEALANT

FOIL/SKRIM/KRAFT (FSK) SEALING TAPE

DESCRIPTION:

Foil, Skrim and kraft combined with a pressure sensitive adhesive and release liner.

USES:

ABRO 3450 is used for sealing cold and temperature duct seams and joints where FSK is the basic insulation facing. The skim blends with the primary facing and give a strong, finished look. At the same time the tape assures the integrity of the insulation. it provides an excellent vapor seal when applied at temperatures above 40°F to clean, dry surfaces. Use of applicator, provide, wil give best results. Store in a cool, dry place (60°F-80°F).

FEATURES/BENEFITS:

Aggressive Adhesive
Easy Liner Removal
Foil

Assures positive seal to maximize insulation integrity
Makes application simple and saves labor time
A vapor barrier essential to the insulation performance.

PHYSICAL PROPERTIES:

Physical Properties:	US Measurements	Metric
Adhesion to Steel	85.0 (oz./in. width)	23.63 n/25.4 mm.
Adhesive System	Rubber	Rubber
Backing Type	Aluminum (FSK)	Aluminum (FSK)
Backing Thickness	7.0 Mil	18 mm.
Tensile	38.0 (lbs./in. width)	168.99 n/25.4 mm.
Post Application Temp. Range	-10°F to + 180°F	-23.33oC to +82.22°C
Application Temperature Range	+10°F to + 180°F	-12.22oC to +82.22°C
Discs (428D)	2.5 in. OD, 500	2.5 in. OD, 500
	Discs/Roll	Discs/Roll
Color	Silver	Silver
Underwriter's Laboratories	Flame Spread 10	Flame Spread 10
Surface Burning Characteristics	Smoke Detected 5	Smoke Detected 5

PACKAGING:

Length: 150 Feet
Width: 3" 4" 5"
Rolls per Case: 16 12 8



TEMPERATURE RANGE: -20°F to 150°F*

DUCT PRODUCTS

DUCT SEALANT

Gasket Tape - GT Tape



Description

Gasket Tape (GT) is particularly appropriate to circumstances where a longlife in combination with a high air humidity resistance and chemical inertness is required. The tape is hardly subject to decay. The tape has also a thermic insulating character. It is often used as ceiling material in ventilation systems and machine building.

Construction:

The tape has been manufactured out of polyethylene foam with one side self adhesive. The elongation is about 40% (DIN 53577)

The tape has not been provided with a protection layer.

Specifications

Temperature range:
-30 °C up to 80 °C

Color:
Black

Adhesion
The adhesion is 1,0 kg/2.5 cm if the surface is fat free and dust free

Storage:
GT Tape has a lifespan of one year at room temperature if the packaging is sealed.

Packing

Standard Length: 10 meter per roll.

GT 6/19 6mm thick, 19mm wide, 10 rolls per bag.

Other thicknesses & widths are available on request.



SPIRAL DUCT

duct.sammangroup.com



+966 592995120
+966 597510438



sales.duct@sammangroup.com

Available in Numerous Materials

Round duct fittings are available in an array of different material options:

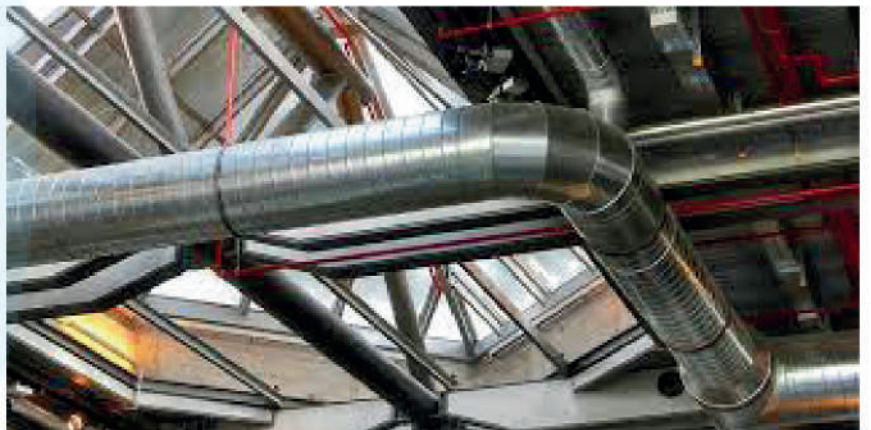
- Paint Grip A-60¹
- Poly-vinyl coated¹
- Galvanized 
- Aluminum 3003
- Stainless 304 or
- Copper
- Aluminized Steel



Used in Wide Range of Applications

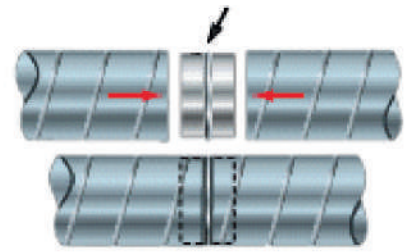
The versatility of spiral pipe makes it ideal for an array of applications, including:

- Industrial
- Commercial
- Bulk Materials
- Underground
- Chemical



Pipe-to-Pipe Slip Joint (Our Standard)

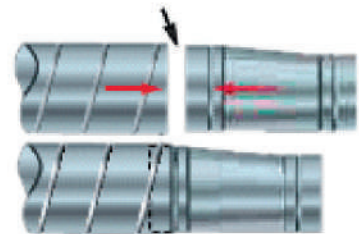
Coupling: Pipe-To-Pipe (female-to-female) slip joints require a standard C-1 coupling, which is male. C-1 couplings are also used with flexhose.



C-1 Coupling

Pipe-To-Fitting Slip Joint (Our Standard)

No coupling required: Since pipe sections are female and fittings male, they just slip together.



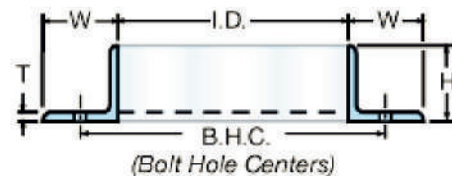
Flange-to-Flange Joints (Optional)

- Flange-to-flange joints are widely used to connect pipes in dust and fume control applications, in outdoor applications, and for additional strength in high positive or high negative pressure applications.
- The basic flange-to-flange joints consist of two facing flanges which are fastened to the ends of the the spiral pipe with screws, pop-rivets, or sometimes by tack welding-except in the case of Vanstone flanges, which do not require fastening to the duct under standard loading conditions. The two flanged ends are then fastened together with bolts, screws, or flange clamps.
- Bolts are used for permanent installations and when the pipe must mate with fans or other air moving equipment. In installations where there is a need for frequent maintenance or cleaning, flange clamps are used
- Spiral Manufacturing offers three configurations of flange-to-flange joints: (1) Angle Ring flanges, (2) the most-widely-used Vanstone flanges, and (3) Engineered flange systems, such as Accuflange, Spiralmate, and Wonderflange.



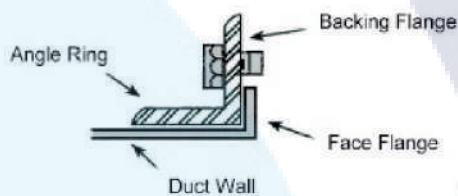
Basic Angle Ring Flanges (Optional)

Pressed and rolled steel angle rings are used widely in joining ductwork in dust and fume control work. Available in 3" to 96" diameters, standard rings are unpainted, mild steel. (Galvanized and Stainless Steel available). They are available with or without holes. Nearly any bolt circle spacing or hole size is available.

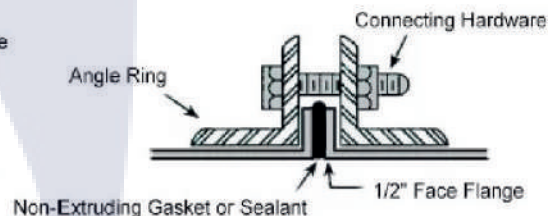


Vanstone Flanges (Optional)

Vanstone Flanges are a very practical and labor saving method for connecting Spiral duct and fittings. Vanstone connections consist of a "face flange" and a separate "backing flange or angle ring" that is slip fit over the Spiral duct.



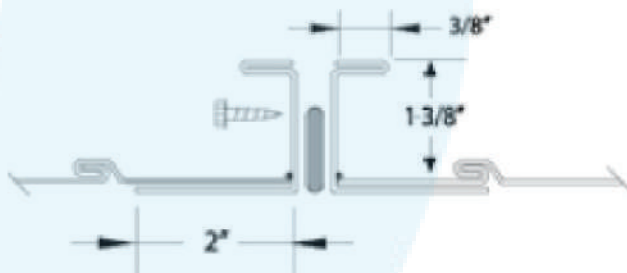
Van Stone Flange Connection



Complete Van Stone Joint

Sheet Metal Accuflange Joint (Optional)

AccuFlange is a patented connecting system, which, when installed and sealed per recommendations, is suitable for use on all systems across a range of internal duct pressures from -10"W.G. to +10"W.G. It is available for both single and double wall pipe, and in a variety of materials.



COMPARISON BETWEEN SPIRAL DUCT AND RECTANGULAR DUCT

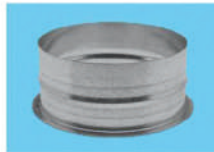
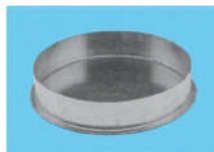
Aspect	Spiral Duct	Rectangular Duct
Shape	Cylindrical	Rectangular
Airflow Efficiency	High	Moderate
Installation	Easy	Time-consuming
Space Utilization	Requires more space	Suited for tight spaces
Cost	Expensive	Less expensive
Aesthetics	Industrial look	Concealable, visually appealing

specific factors may vary depending on the HVAC system, installation requirements, and other considerations. It's always recommended to consult with a professional HVAC contractor for a more accurate assessment based on your specific needs.

SPIRAL DUCT

TYPES OF SPIRAL DUCT

Product	Type
Spiral ducts 	GS
Bends 	EL / 90° ELD / 90° EL / 60° EL / 45° EL / 30° EL / 15° ELM / 90°
Tee 	TY TYE TYR TY / 45° TYR / 45°
Collar saddle 	
Reducers 	RED REDE RED - P RED - P - E
Cross 	RK RKR RK / 45° RKR / 45°
Round duct support 	Round duct support Dia. Up to 315 = 30 x 3mm thk. Dia. Up to 800 = 30 x 4mm thk. Dia. Up to 1250 = 40 x 5mm thk.

Product	Type
Twinbend 	TB / 45° TB / 90° TB - R / 45° TB - R / 90°
Offset 	OFF
Take off 	TO TO - R
Spin-in fitting 	SFL
End cap 	EC
Couplings 	CPO
Round duct support 	Round duct support type DS - 1, made of galvanised steel sheets with two different widths of 25mm x 2mm thk. or 40mm X 1.2mm thk.

SPIRAL DUCT

SAMMAN SPIRAL DUCT SYSTEM

SAMMAN Spiral Duct System:

A complete spiral duct and circular fittings program with a product range from 63mm up to 1500mm to cover all the pressure applications from low/medium to high pressure systems with clear advantages in lower installation and operational cost and superior strength, making the SAMMAN Round Duct System a more economical alternative to traditional rectangular duct systems.



SPIRAL DUCT

ASSEMBLY INSTRUCTIONS

Description

SAMMAN Round Duct must be assembled according to these instructions:

Before Assembly:

The duct must be free from dirt.

Shortening Ducts:

Ducts must be cut at right angles and carefully deburred.

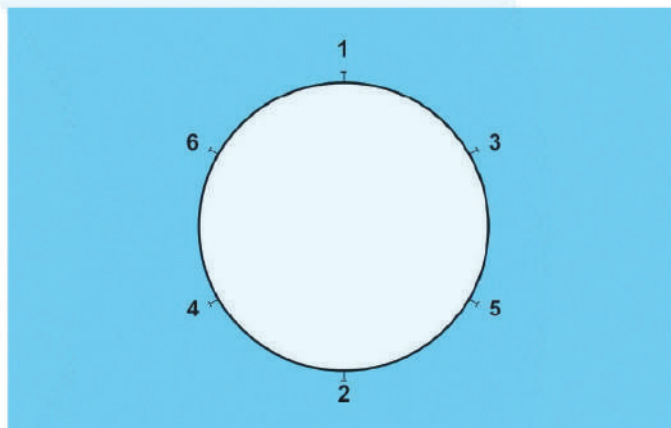
Assembly of Fittings:

- Check that ducts and fittings are undamaged.
- Push the fittings into the duct right to the stop. Turning the fitting a little makes insertion easier.
- Fasten the fittings to the duct with self-tapping screws or pop rivets.

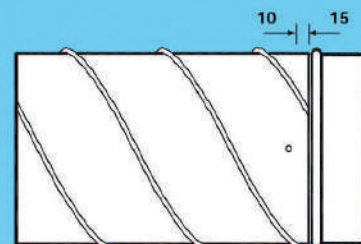
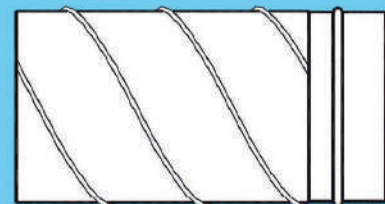
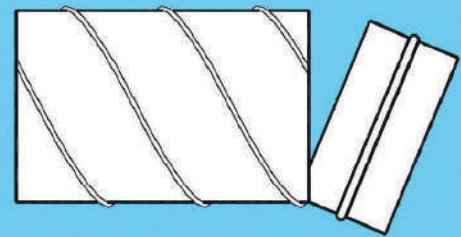
The following numbers and dimensions of steel screws and pop rivets are recommended:

Ød mm	Min. diameter mm	Number
63-125	3.2	2
140-250	3.2	3
280-630	3.2	4
710-1250	4.0	6
1400-1600	4.8	12

Distribute the screws or pop rivets evenly around the circumference. in the event of incorrect assembly, holes caused by screws or pop rivets must be sealed.



SAMMAN SPIRAL DUCT



Standards for Spiral Duct Construction

Comparison between the standards of various for spiral seam ventilation tubes in respect of the material thickness:

Dimensions	DW 144	BFS 1988:18	Din 24145	NF p-50-401	DS 447	DVS 36002	SMACNA L/P	SMACNA H/P
63	0.6	0.4	0.4	0.5	0.5	0.5	28	28
71	0.6	0.4	0.4	0.5	0.5	0.5	28	28
80	0.6	0.4	0.4	0.5	0.5	0.5	28	28
90	0.6	0.5	0.4	0.5	0.5	0.5	28	28
100	0.6	0.5	0.6	0.5	0.5	0.5	28	28
112	0.6	0.5	0.6	0.5	0.5	0.5	28	28
125	0.6	0.5	0.6	0.5	0.5	0.5	28	28
140	0.6	0.5	0.6	0.5	0.5	0.5	28	28
160	0.6	0.5	0.6	0.5	0.5	0.5	28	28
180	0.6	0.5	0.6	0.5	0.5	0.5	28	28
200	0.6	0.6	0.6	0.6	0.5	0.6	28	28
224	0.8	0.6	0.6	0.6	0.5	0.6	28	28
250	0.8	0.6	0.6	0.6	0.5	0.6	28	28
280	0.8	0.6	0.8	0.6	0.6	0.6	28	26
315	0.8	0.6	0.8	0.6	0.6	0.6	28	26
355	0.8	0.8	0.8	0.6	0.6	0.6	28	26
400	0.8	0.8	0.8	0.8	0.6	0.8	26	24
450	0.8	0.8	0.8	0.8	0.6	0.8	26	24
500	0.8	0.8	0.8	0.8	0.6	0.8	26	24
560	0.8	0.8	0.8	0.8	0.7	0.8	26	24
630	0.8	0.8	1.0	0.8	0.7	0.8	26	24
710	0.8	0.8	1.0	1.0	0.7	0.8	24	22
800	1.0	0.8	1.0	1.0	0.7	0.9	24	22
900	1.0	0.9	1.0	1.0	0.9	0.9	24	22
1000	1.0	0.9	1.2	1.0	0.9	0.9	22	20
1120	1.2	0.9	1.2	1.0	0.9	0.9	22	20
1250	1.2	0.9	1.2	1.2	0.9	0.9	22	20
1400	1.2		1.5		0.9		20	18
1600	1.2		1.5		0.9		18	18
	British standard	Swedish standard	German standard	French standard	Danish standard	Danish standard	American standard	American standard

SPIRAL DUCT

STANDARDS OF SPIRAL DUCT CONSTRUCTION

circular fittings

Table 2-1 Spiral Duct Wall Thickness Schedule (Positive Pressure)

Duct Diameter in mm (inches)					+500 Pa, (2" W.G.) Positive Pressure		+1000 Pa, (4" W.G.) Positive Pressure		+2500 Pa, (10" W.G.) Positive Pressure	
					Spiral seam gauge	Longitudinal seam gauge	Spiral seam gauge	Longitudinal seam gauge	Spiral seam gauge	Longitudinal seam gauge
75	(3)	thru	(8)	200	26	26	26	26	26	24
201	(9)	thru	(14)	355	26	26	26	26	26	24
356	(15)	thru	(26)	660	26	24	24	22	24	22
661	(27)	thru	(36)	910	24	22	22	20	22	20
911	(37)	thru	(50)	1270	22	20	20	20	20	20
1271	(51)	thru	(60)	1520	20	18	18	18	18	18
1521	(61)	thru	(84)	2130	18	16	18	16	18	16
2131	(85)	thru	(98)	2500	18	16	16	14	16	14

- Circular duct fittings shall have a wall thickness not less than that specified for longitudinal seam straight duct in above table 2-1.
- Corrugated ducts are not reflected in above table.
- Longitudinal seam duct are continuously welded and supplied in 1 meter long.
- Above schedule meet the requirements of SMACNA HVAC Duct Construction Stds. Metal and Flexible, Second Edition 1995.

Table 2-2 Spiral Duct Wall Thickness Schedule (Negative Pressure)

Duct Diameter in mm (inches)					-500 Pa, (2" W.G.) Negative Pressure		-1000 Pa, (4" W.G.) Negative Pressure		-2500 Pa, (10" W.G.) Negative Pressure	
					Spiral seam gauge	Longitudinal seam gauge	Spiral seam gauge	Longitudinal seam gauge	Spiral seam gauge	Longitudinal seam gauge
75	(3)	thru	(8)	200	26	26	26	26	26	24
201	(8)	thru	(12)	305	26	26	26	24	24	22
306	(12)	thru	(16)	400	26	24	24	22	22	20
401	(16)	thru	(20)	508	24	22	22	20	22	18
509	(20)	thru	(24)	610	22	20	22	18	20	16
611	(24)	thru	(34)	863	20	18	20	16	18	16*
864	(34)	thru	(48)	1219	20	18*	18	16	18*	16*
1220	(34)	thru	(60)	1524	18	18*	18*	16*	18*	16*

- Circular duct fittings shall have a wall thickness not less than that specified for longitudinal seam straight duct in above table 2-2.
- Corrugated ducts are not reflected in above table.
- Longitudinal seam duct are continuously welded and supplied in 1 meter long.
- Above schedule meet the requirements of SMACNA HVAC Duct Construction Stds. Metal and Flexible, Second Edition 1995.

* Require reinforcement angles at specified intervals.

SPIRAL DUCT

STANDARDS OF SPIRAL DUCT CONSTRUCTION

circular fittings

Table 2-3 Spiral Duct Wall Thickness Schedule (as per DW 144)

Maximum Diameter mm	Spiral Duct	Longitudinal Seam Low + Medium Pressure	Longitudinal Seam High Pressure	Fittings
205	0.6 mm	0.6 mm	0.8 mm	0.7 mm
206 - 510	0.8 mm	0.8 mm	0.8 mm	0.7 mm
511 - 630	0.8 mm	0.8 mm	1.0 mm	0.8 mm
631 - 762	0.8 mm	0.8 mm	1.0 mm	1.0 mm
763 - 913	0.8 mm	0.8 mm	1.2 mm	1.0 mm
914 - 1020	1.0 mm	1.0 mm*	1.2 mm*	1.0 mm
1021 - 1525	1.2 mm*	1.2 mm*	1.2 mm*	1.2 mm

- Longitudinal seam duct are continuously welded and supplied in 1 meter long.
- Above schedule meets all requirement of DW/144 Specifications for sheet metal ductwork.

* Spiral duct should be helically beaded (corrugated.) Longitudinal duct and fittings must be reinforced with angles.

Table 2-4 Spiral Duct wall Thickness Suhedule (Eurovent)

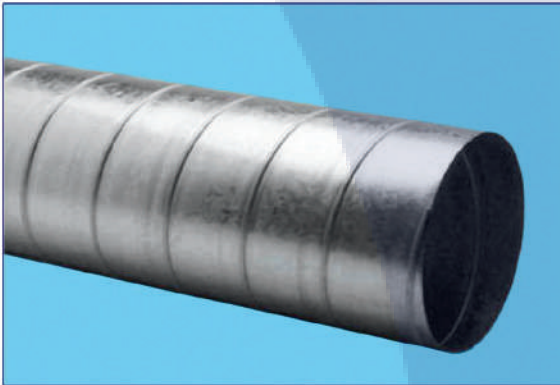
Diameter mm			Operating Pressure	
			160 mm W.G. max	250 mm W.G. max
63	thru	125	0.60	0.75
180	thru	259	0.75	0.88
280	thru	500	0.88	1.00
560	thru	1000	1.00	1.33
1120	thru	1400	1.13	1.25
1600	thru	2000	1.13	-

- Circular fittings shall be one gauge heavier than the spiral duct gauge in above table 2-4.
- Corrugated ducts are not reflected in above schedule.
- Longitudinal seam ducts should be one gauge heavier than spiral duct gauge and shall be continuously welded and supplied in 1 meter length.

SPIRAL DUCT

STANDARDS OF SPIRAL DUCT CONSTRUCTION

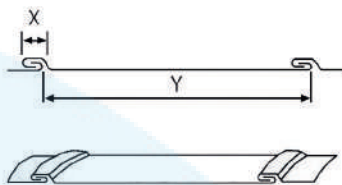
Profile GS



Types: GS

Spirally Wound Round Duct
Diameter Range: 80 – 1500 mm
Thickness Range: 26 – 18 gauge

Standard products are normally manufactured from hot dip galvanized steel coil (as per ASTM A653) lock forming quality grade and as specified in SMACNA Standards and DW144 sheet metal ductworks.



Ordering

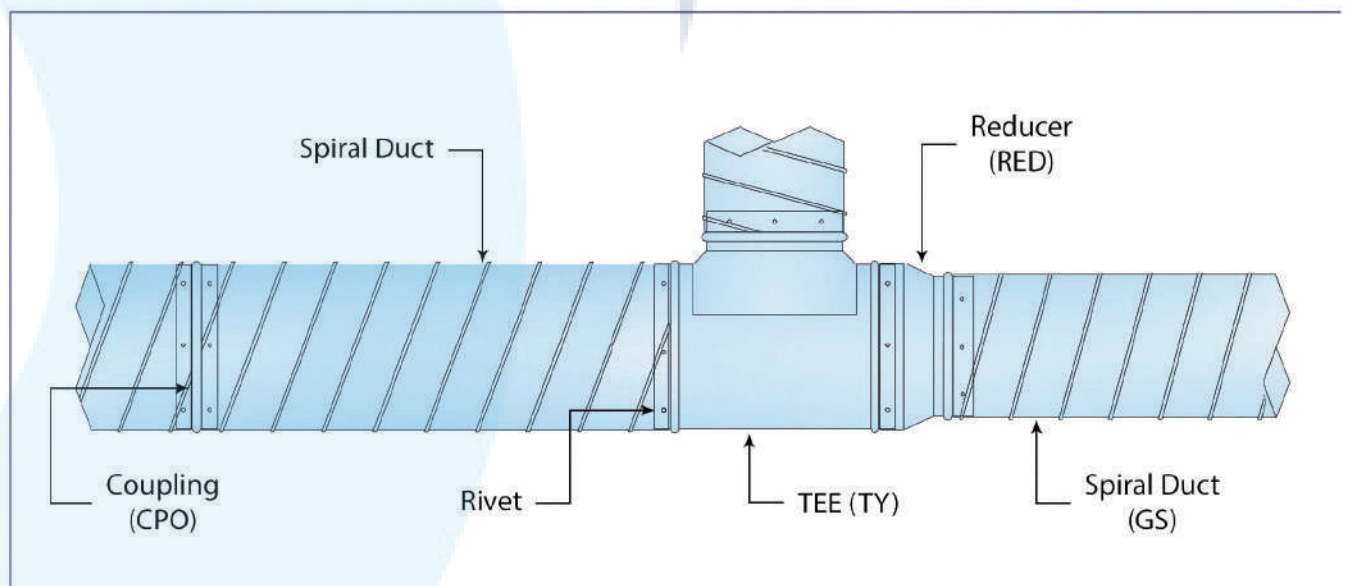
Product code: GS - aaa

Type _____
°d _____

Spiral Duct

Transverse Connections

Table 2-3 Typical Transverse joints



Weights

Table 2-5 WEIGHTS (kg/m)

Weights

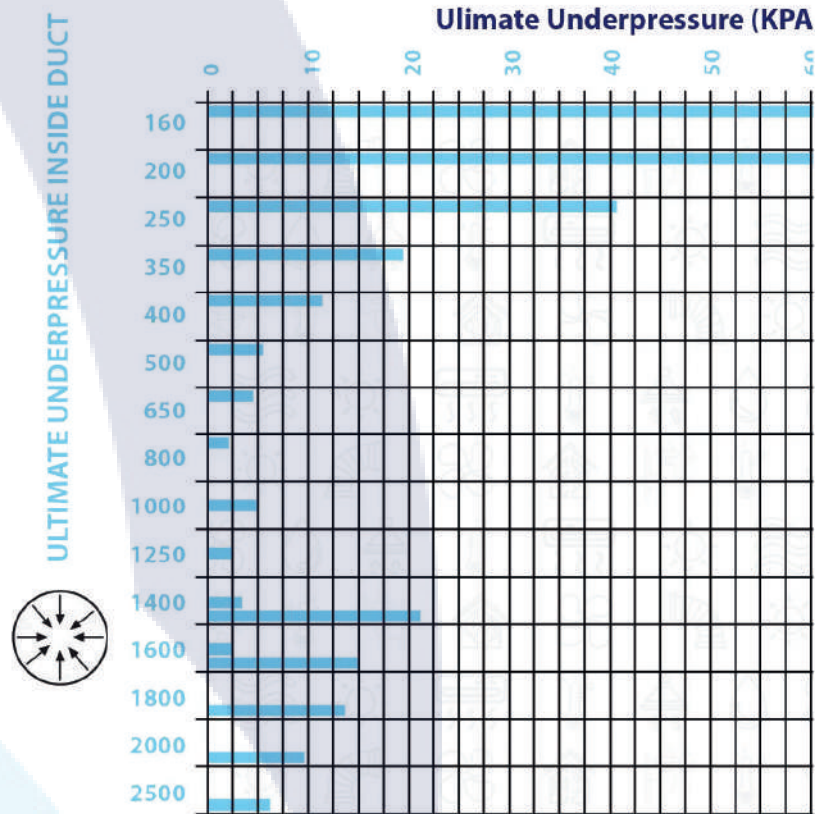
Thickness Gauge Dia (mm)	GS				
	26	24	22	20	18
63	1.0				
80	1.3				
100	1.6	2.0			
112	1.8	2.3			
125	2.0	2.5			
140	2.2	2.8	3.4		
160	2.5	3.2	3.9		
180	2.8	3.7	4.4		
200	3.2	4.1	4.9	5.8	
224	3.5	4.5	5.5	6.5	
250	4.0	5.1	6.1	7.2	9.4
280	4.4	5.7	6.9	8.1	10.6
315	5.0	6.4	7.7	9.1	11.9
355	5.6	7.2	8.7	10.3	13.4
400	6.3	8.1	9.8	11.6	15.1
450	7.1	9.1	11.0	13.0	17.0
500	7.9	10.1	12.3	14.5	18.8
550	8.7	11.1	13.5	15.9	20.7
630	10.0	12.7	15.4	18.2	23.7
710			17.4	20.5	26.8
800			19.7	23.1	30.1
900			22.1	26.0	33.9
1000				28.9	37.7
1120				32.4	42.2
1250				36.2	47.1
1400					52.7
1600					60.3

Above weights are per L.M. for galvanized steel and stainless steel spiral ducts.

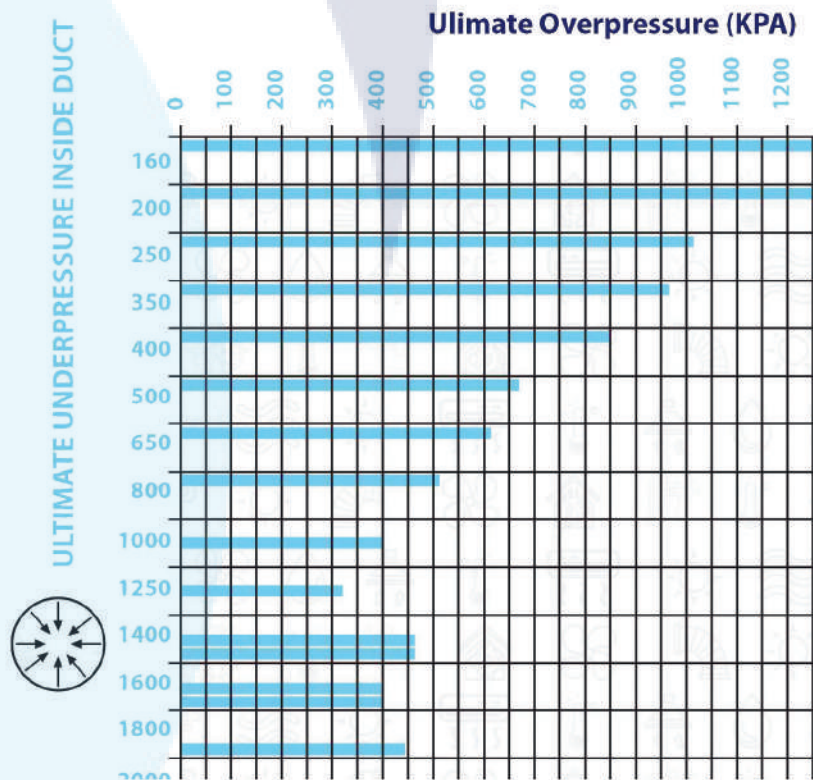
SPIRAL DUCT

STANDARDS OF SPIRAL DUCT CONSTRUCTION

Pressure Capabilities
Table 2 - 8



Pressure Capabilities
Table 2 - 7



SPIRAL DUCT

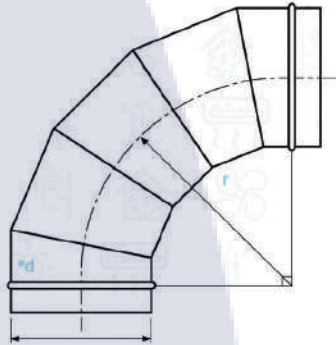
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Bend 90°

EL /90°



Dimensions



Descriptions

- 90° Bend
- $r = 1.5d$
- 5 - Gore Bend (segmented) as a standard
- Fabricated with either, continuous seam or stitch welding

Ordering

Product code: EL /90 - aaa

Type _____

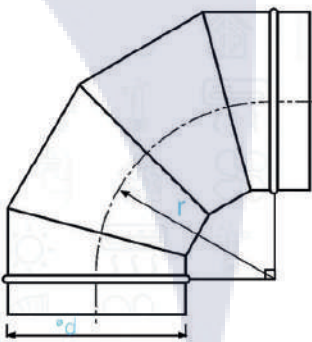
°d _____

Bend 90°

ELD /90°



Dimensions



Descriptions

- 90° Bend
- $r = d$
- 4 - Gore Bend (segmented) as a standard
- Fabricated with either, continuous seam or stitch welding

Ordering

Product code: ELD/90 - aaa

Type _____

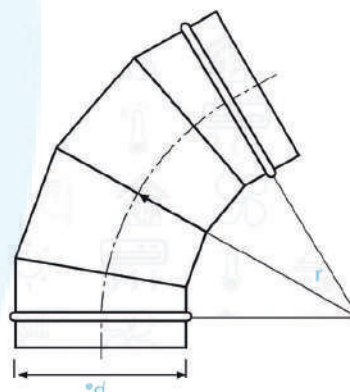
°d _____

Bend 60°

ELD /60°



Dimensions



Descriptions

- 60° Bend
- $r = 1.5d$
- 4 - Gore Bend (segmented) as a standard
- Fabricated with either, continuous seam or stitch welding

Ordering

Product code: EL/60 - aaa

Type _____

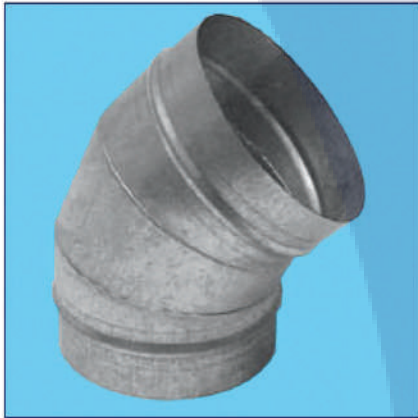
°d _____

SPIRAL DUCT

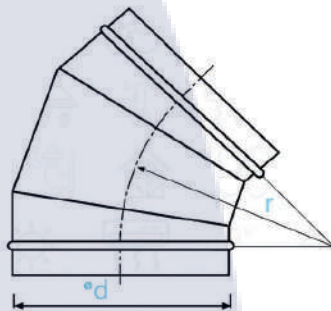
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Bend 45°

EL /45°



Dimensions



Descriptions

- 45° Bend
- $r = 1.5d$
- 3 - Gore Bend (segmented) as a standard
- Fabricated with either, continuous seam or stitch welding

Ordering

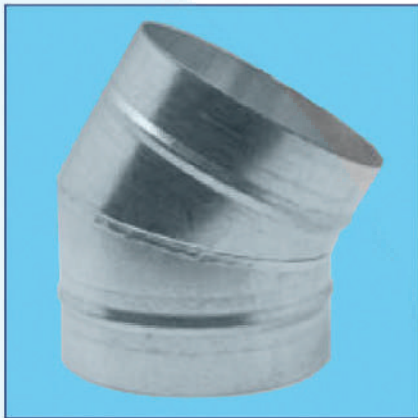
Product code: EL /45 - aaa

Type _____

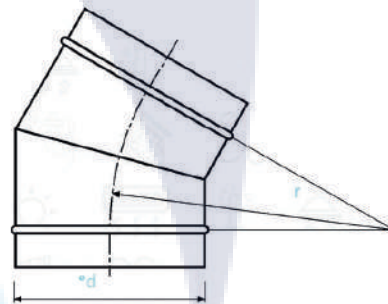
°d _____

Bend 30°

EL /30°



Dimensions



Descriptions

- 30° Bend
- $r = 1.5d$
- 2 - Gore Bend (segmented) as a standard
- Fabricated with either, continuous seam or stitch welding

Ordering

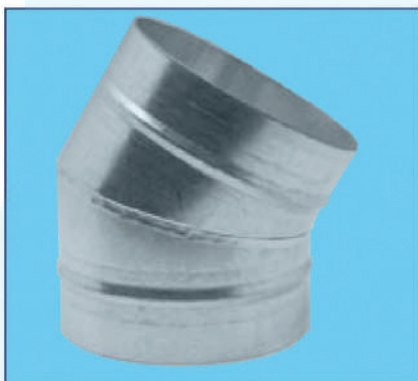
Product code: EL /30 - aaa

Type _____

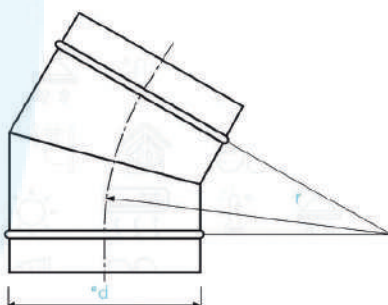
°d _____

Bend 15°

ELD /15°



Dimensions



Descriptions

- 15° Bend
- $r = 1.5d$
- 2 - Gore Bend (segmented) as a standard
- Fabricated with either, continuous seam or stitch welding

Ordering

Product code: EL /15 - aaa

Type _____

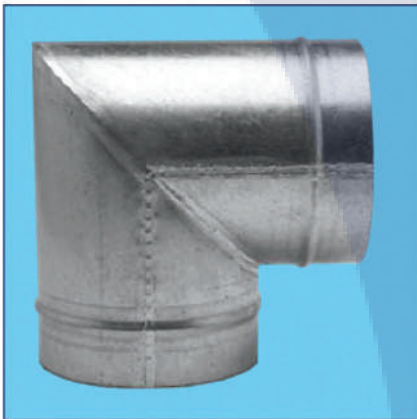
°d _____

SPIRAL DUCT

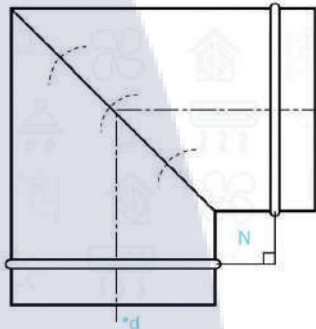
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Mitered Bend 90°

ELM / 60°



Dimensions



Descriptions

- 90° Mitered Bend
- N = 100
- 2 - Gore Bend (segmented) as a standard
- Fabricated with either, continuous seam or stitch welding

Ordering

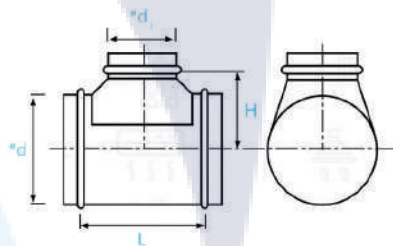
Product code: ELM/90 - aaa
Type _____
°d _____

Tee

TY



Dimensions



Descriptions

- Equal Tee
- Fabricated with continuous seam or stitch welding

Ordering

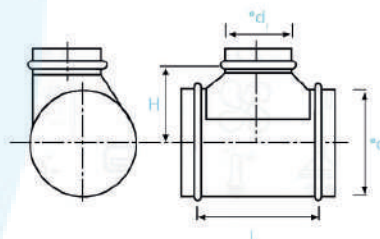
Product code: TY - aaa - bbb
Type _____
°d _____
°d1 _____

Tee Eccentric

TYE



Dimensions



Descriptions

- Tee Eccentric
- Fabricated with continuous seam or Stitch welding

Ordering

Product code: TYE - aaa / bbb
Type _____
°d _____
°d1 _____

SPIRAL DUCT

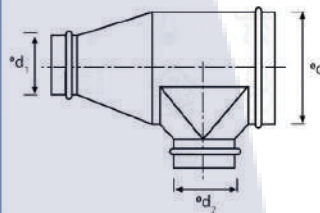
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Reducing Tee

TYR



Dimensions



Descriptions

- Reducing Tee
- Fabricated with continuous seam or stitch welding

Ordering

Product code: TYR - aaa - bbb / ccc

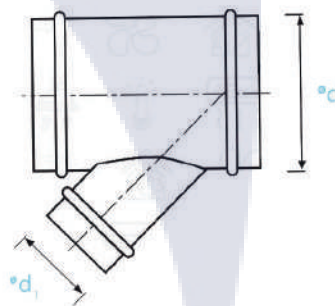
Type _____
 $\varnothing d$ _____
 $\varnothing d_1$ _____
 $\varnothing d_2$ _____

Lateral Tee

TY / 45



Dimensions



Descriptions

- 45° Lateral Cross
- Fabricated with continuous seam or stitch welding

Ordering

Product code: TY/45 - aaa - bbb

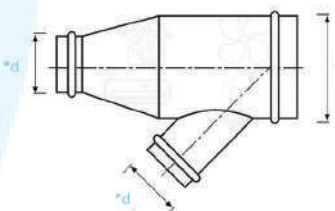
Type _____
 $\varnothing d$ _____
 $\varnothing d_1$ _____

Reducing Lateral Tee

TYR / 45



Dimensions



Descriptions

- 45° Lateral Cross
- Fabricated with continuous seam or stitch welding

Ordering

Product code: TY/45 - aaa - bbb / ccc

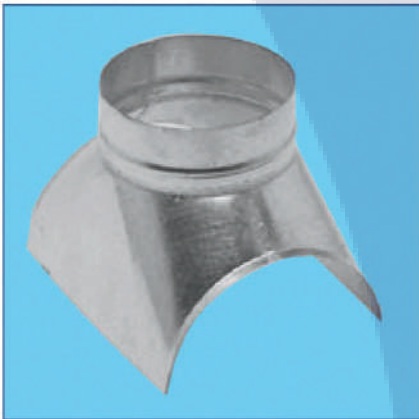
Type _____
 $\varnothing d$ _____
 $\varnothing d_1$ _____
 $\varnothing d_2$ _____

SPIRAL DUCT

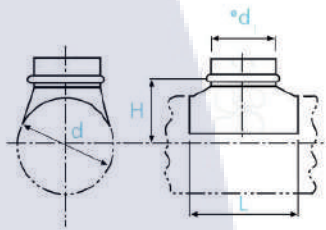
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Collar Saddle

LKP



Dimensions



Descriptions

- Collar Saddle
- Fabricated with continuous seam or Stitch welding

Ordering

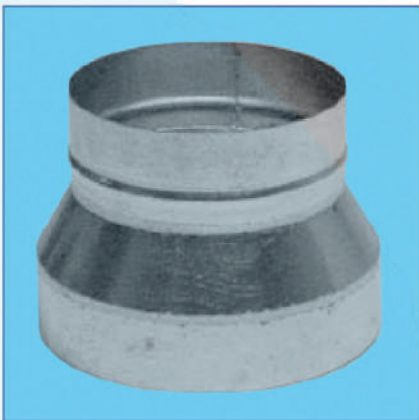
Product code:

Type _____
 $^{\circ}d$ _____
 $^{\circ}d_1$ _____

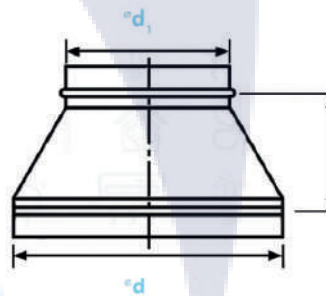
LKP - aaa / bbb

Reducer

RED



Dimensions



Descriptions

- Reducer Centric = Female / Male
- $^{\circ}d_1$ - Connected straight to spiral duct
- $^{\circ}d$ - Connected straight to fittings
- Fabricated with continuous seam or stitch welding

Ordering

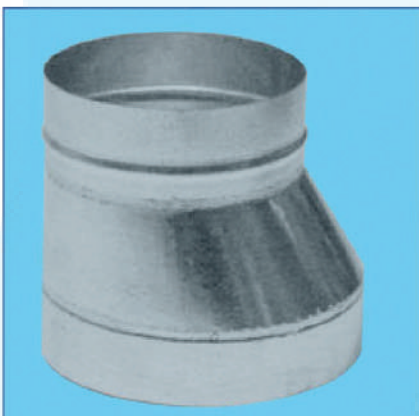
Product code:

Type _____
 $^{\circ}d$ _____
 $^{\circ}d_1$ _____

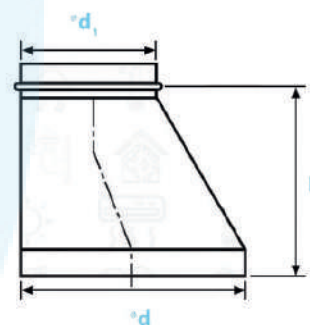
RED - aaa / bbb

RED / RED E

REDE



Dimensions



Descriptions

- Reducer Centric = Female / Male
- $^{\circ}d_1$ - Connected straight to spiral duct
- $^{\circ}d$ - Connected straight to fittings
- Fabricated with continuous seam or stitch welding

Ordering

Product code:

Type _____
 $^{\circ}d$ _____
 $^{\circ}d_1$ _____

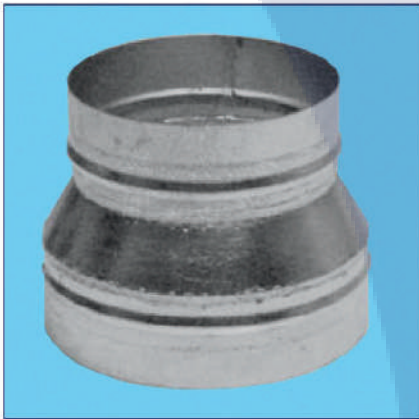
REDE - aaa / bbb

SPIRAL DUCT

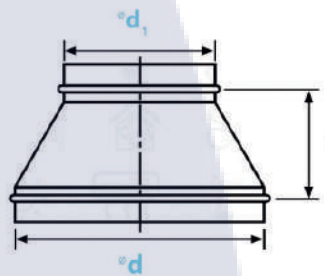
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Reducer

RED-P



Dimensions



Descriptions

- Reducer Centric = Male / male
- $^{\circ}d_1$ - Connected straight to spiral duct
- $^{\circ}d$ - Connected straight to spiral duct
- Fabricated with continuous seam or stitch welding

Ordering

Product code: RED-P - aaa / bbb

Type _____

$^{\circ}d$ _____

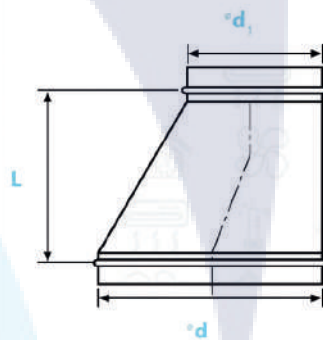
$^{\circ}d_1$ _____

RED - P / RED - P-E

RED-P/E



Dimensions



Descriptions

- Reducer Centric = Male / male
- $^{\circ}d_1$ - Connected straight to spiral duct
- $^{\circ}d$ - Connected straight to spiral duct
- Fabricated with continuous seam or stitch welding

Ordering

Product code: RED-P - aaa / bbb

Type _____

$^{\circ}d$ _____

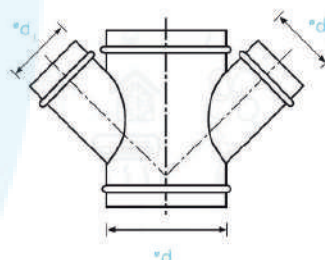
$^{\circ}d_1$ _____

Lateral Cross

RK / 45°



Dimensions



Descriptions

- 45° Lateral Cross
- Fabricated with continuous seam or stitch welding

Ordering

Product code: RK/45 - aaa - bbb / ccc

Type _____

$^{\circ}d$ _____

$^{\circ}d_1$ _____

$^{\circ}d_2$ _____

SPIRAL DUCT

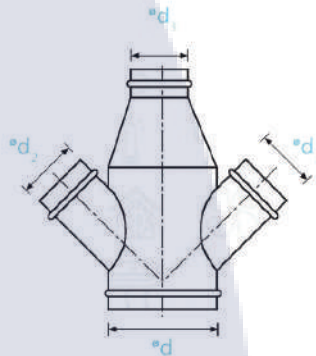
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Lateral Reducing Corss

RKR / 45°



Dimensions



Descriptions

- 45° Lateral Reducing Cross
- Fabricated with continuous seam or stitch welding

Ordering

Product code: RKR/45 - aaa / bbb / ccc / ddd

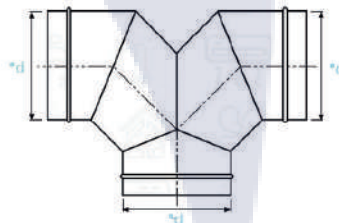
Type _____
 $^{\circ}d$ _____
 $^{\circ}d_1$ _____
 $^{\circ}d_2$ _____
 $^{\circ}d_3$ _____

Twinbend

TB/ 90°



Dimensions



Descriptions

- 90° Twinbend
- Fabricated with continuous seam or stitch welding

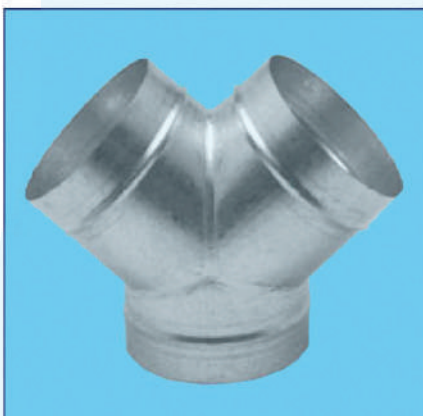
Ordering

Product code: TB/90 - aaa

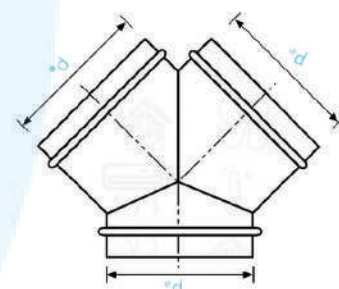
Type _____
 $^{\circ}d$ _____

Twinbend

TB / 45°



Dimensions



Descriptions

- 45° Twinbend
- Fabricated with continuous seam or Stitch welding

Ordering

Product code: TB/45 - aaa

Type _____
 $^{\circ}d$ _____

SPIRAL DUCT

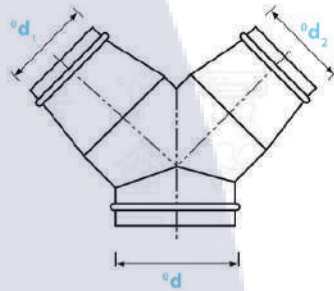
STANDARDS OF SPIRAL DUCT CONSTRUCTION

Reducing Twinbend

TB-R / 45°



Dimensions



Descriptions

- 45° Reducing Twinbend
- Fabricated with continuous seam or stitch welding

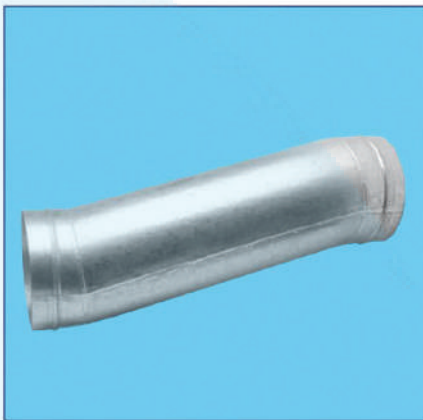
Ordering

Product code: TB-R/45 - aaa - bbb / ccc

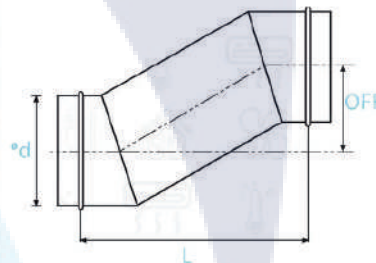
Type _____
 $\varnothing d$ _____
 $\varnothing d_1$ _____
 $\varnothing d_2$ _____

Offset

OFF



Dimensions



Descriptions

- Offset
- Fabricated with continuous seam or stitch welding

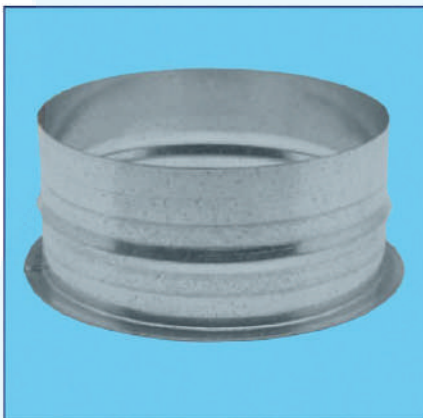
Ordering

Product code: OFF - aaa - bbb / ccc

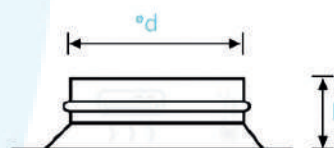
Type _____
 $\varnothing d$ _____
 OFF _____
 L _____

Take off

TO



Dimensions



Descriptions

- Take off
- To be fixed on rectangular duct
- Fabricated with continuous seam or Stitch welding

Ordering

Product code: TO - aaa

Type _____
 $\varnothing d$ _____

SPIRAL DUCT

STANDARDS OF SPIRAL DUCT CONSTRUCTION

Take off

TO-R



Dimensions



Descriptions

- Take off
- With radius
- To be fixed on rectangular duct
- Fabricated with continuous seam or Stitch welding

Ordering

Product code:

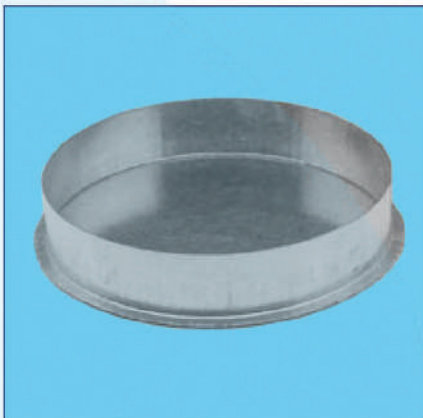
TO-R - aaa

Type

°d

End Cap

EC



Dimensions



Descriptions

- End cap
- To be fitted outside the duct.
- Fabricated with continuous seam or stitch welding.

Ordering

Product code:

EC - aaa

Type

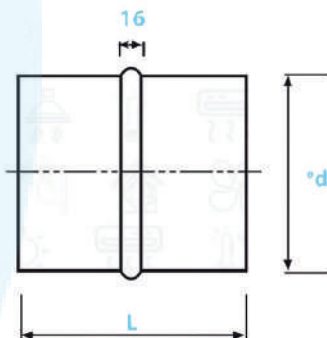
°d

Coupling

CPO / CPI



Dimensions



Descriptions

- Coupling
- Duct connector
- Fabricated with continuous seam or stitch welding.

Ordering

Product code:

CPO - aaa

Type

°d

SPIRAL DUCT

CONVERSION CHART

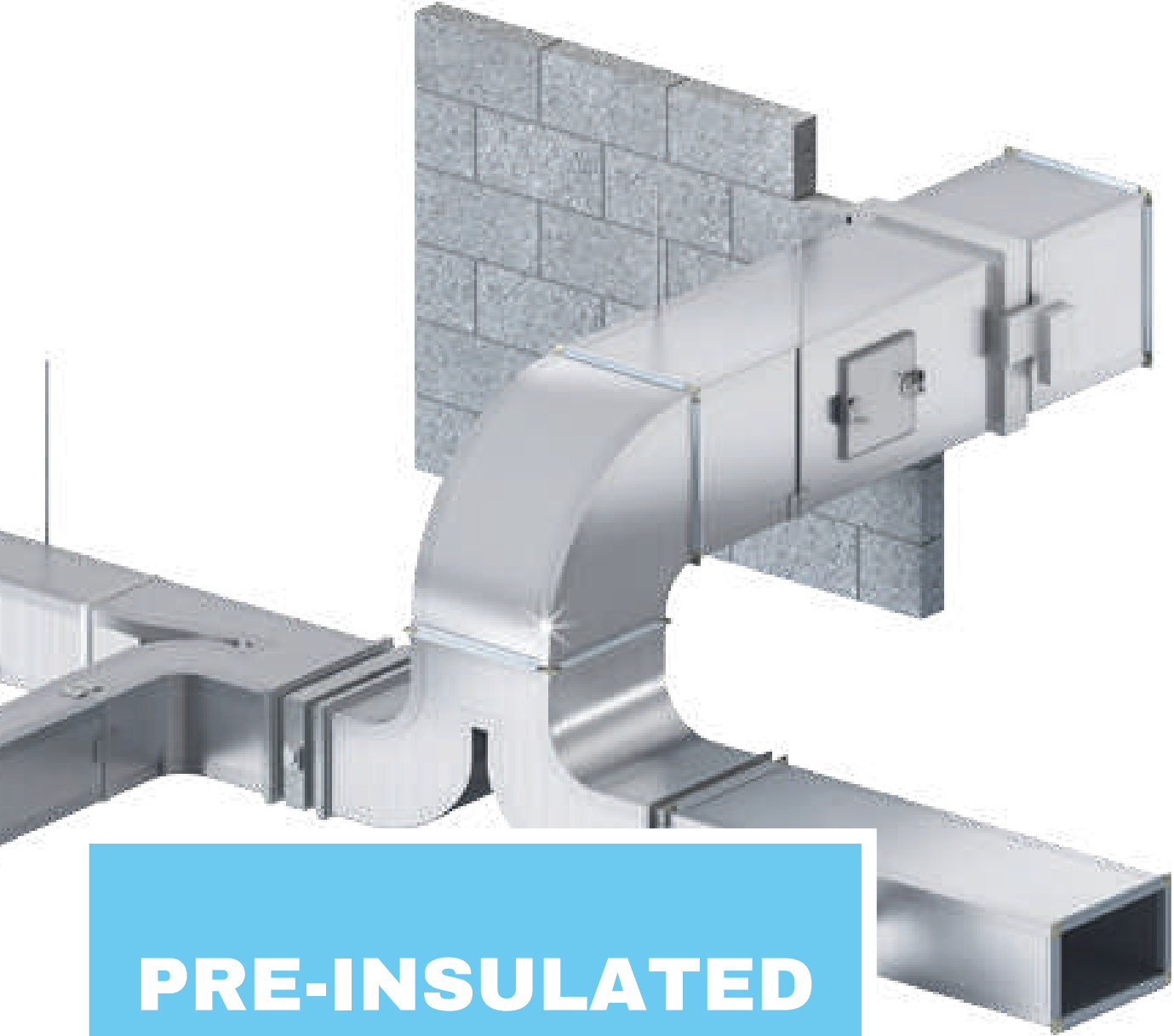
Conversion Chart:

Rectangular to Equivalent Round for Equal Friction and Capacity.

a \ b	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	900	1000	1200	1400	1600	1700	1800	1900	2000
100	109																							
125	122																							
150	133	164																						
175	143	177																						
200	152	189	219																					
225	161	200	232																					
250	169	210	244	273																				
275	176	220	256	287																				
300	183	229	266	299	328																			
350	195	245	286	322	354	383																		
400	207	260	305	343	378	409	437																	
450	217	274	321	363	400	433	464	492																
500	227	287	337	381	420	455	488	518	547															
550	236	299	352	398	439	477	511	543	573	601														
600	245	310	365	414	457	496	533	567	598	628	656													
650	253	321	378	429	474	515	553	589	622	653	683	711												
700	261	331	391	443	490	533	573	610	644	677	708	737	765											
750	268	341	402	457	506	550	592	630	666	700	732	763	792	820										
800	275	350	414	470	520	567	609	649	687	722	755	787	818	847	875									
900	289	367	435	494	548	597	643	686	726	763	799	833	866	897	927	984								
1000	301	384	454	517	574	626	674	719	762	802	840	876	911	944	976	1037	1093							
1100	313	399	473	538	598	652	703	751	795	838	878	916	953	988	1022	1086	1146							
1200	324	413	490	558	620	677	731	780	827	872	914	954	998	1030	1066	1133	1196	1312						
1300	334	426	506	577	642	701	757	808	857	904	948	990	1031	1069	1107	1177	1244	1365						
1400	344	439	522	595	662	724	781	835	886	934	980	1024	1066	1107	1146	1220	1289	1416	1530					
1500	353	452	536	612	681	745	805	860	913	963	1011	1057	1100	1143	1183	1260	1332	1464	1584					
1600	362	463	551	629	700	766	827	885	939	991	1041	1088	1133	1177	1219	1298	1373	1511	1635	1749				
1700	371	475	564	644	718	785	849	908	964	1018	1069	1118	1164	1209	1253	1335	1413	1555	1684	1803	1858			
1800	379	485	577	660	735	804	869	930	988	1043	1096	1146	1195	1241	1286	1371	1451	1598	1732	1854	1968	2077		
1900	387	496	590	674	751	823	889	952	1012	1068	1122	1174	1224	1271	1318	1405	1488	1640	1778	1904	1964	2021	2077	
2000	395	506	602	688	767	840	908	973	1034	1092	1147	1200	1252	1301	1348	1438	1523	1680	1822	1952	2014	2073	2131	2186
2100	402	516	614	702	782	867	927	993	1055	1115	1172	1226	1279	1329	1378	1470	1558	1719	1865	1999	2063	2124	2183	2240
2200	410	525	625	715	797	874	945	1013	1076	1137	1195	1251	1305	1356	1406	1501	1591	1756	1906	2044	2110	2173	2233	2292
2300	417	534	636	728	812	890	963	1031	1097	1159	1218	1275	1330	1383	1434	1532	1623	1793	1947	2088	2155	2220	2283	2343
2400	424	543	647	740	826	905	980	1050	1116	1180	1241	1299	1355	1409	1461	1561	1655	1828	1986	2131	2200	2266	2330	2393
2500	430	552	658	753	840	920	996	1068	1136	1200	1262	1322	1379	1434	1488	1589	1685	1862	2024	2173	2243	2311	2377	2441
2600	437	560	668	764	853	935	1012	1085	1154	1220	1283	1344	1402	1459	1513	1617	1715	1896	2061	2213	2285	2355	2422	2487
2700	443	569	678	776	866	950	1023	1102	1173	1240	1304	1366	1425	1483	1538	1644	1744	1929	2097	2253	2327	2398	2466	2533
2800	450	577	688	787	879	964	1043	1119	1190	1259	1324	1387	1447	1506	1562	1670	1772	1961	2133	2292	2367	2439	2510	2578
2900	456	585	697	798	891	977	1058	1135	1208	1277	1344	1408	1469	1529	1586	1696	1800	1992	2167	2329	2406	2480	2552	2621

$D_e = 1.30 [(ab)^{0.625} / (a+b)^{0.250}]$ where,
a = length of one side of rectangular duct (mm).
b = length of adjacent side of rectangular duct (mm).
 D_e = circular equivalent of rectangular duct for equal friction and capacity (mm).

Example: conver rectangular duct 500x500 to equivalent round.
a = 500, b = 500; from above table $D_e = 547$



PRE-INSULATED DUCT

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CONTENT

- Range & limitation
- Air leakage
- advantages
- mechanical properties
- Phenolic System
- PIR System
- Phenolic VCD
- PIR VCD
- Accessories



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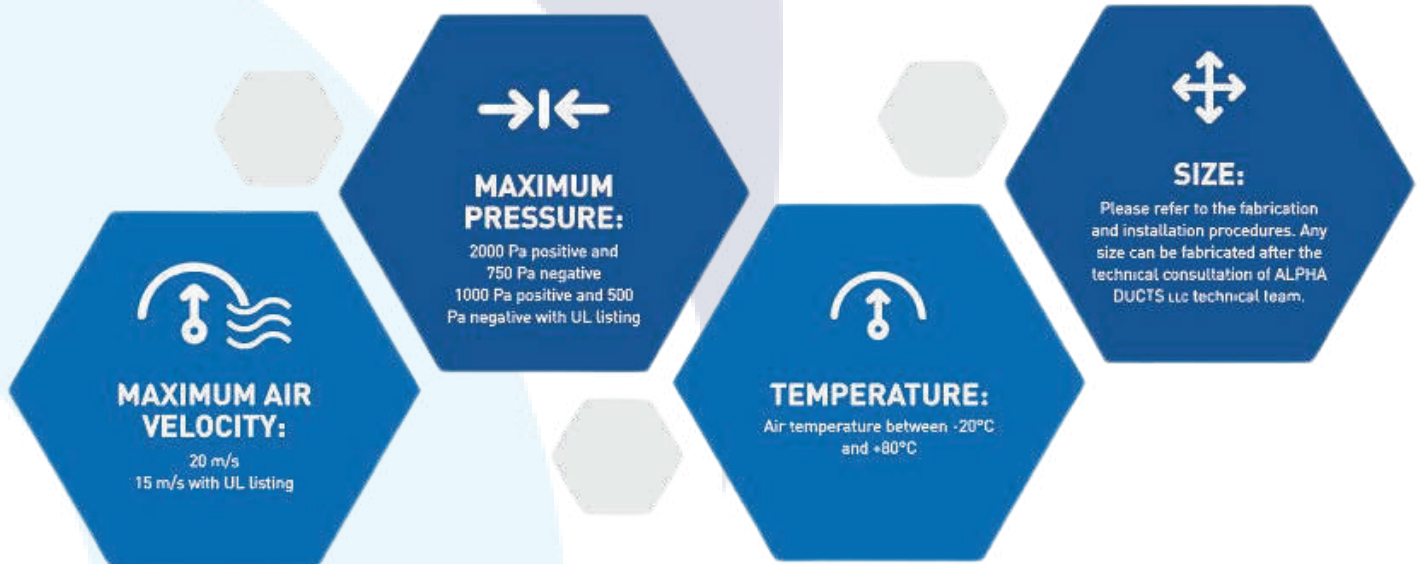


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RANGE & LIMITATION

Air duct system is recommended to be used in the system of supply, return, fresh air and exhaust for air conditioning, heating and ventilation within the below limits



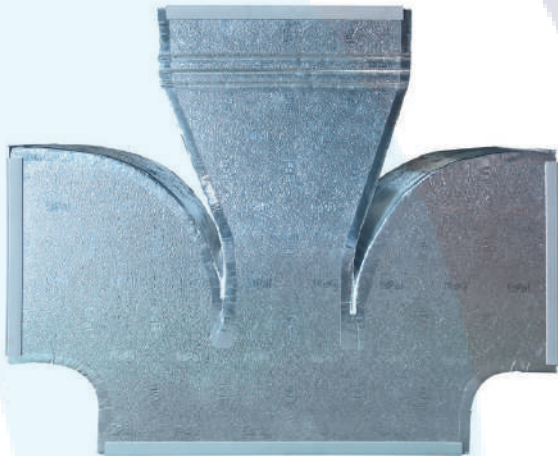
PRE INSULATED DUCT PHENOLIC SYSTEM

Introduction

Overview

The heating, ventilation and air-conditioning (HVAC) industry is in the midst of a dynamic era. However, air-distribution ductwork, a critical component of HVAC systems, has remained virtually unchanged since the early 1900s.

Several factors have introduced the need to revolutionise HVAC ductwork. Energy use has continued to escalate, and thus the demand for energy reducing solutions has intensified. Requirements for clean air are becoming increasingly prevalent. Speed of construction has become a valuable asset. Floor space and headroom are under constant pressure.



Kingspan Insulation has proven the value of its products and Kingspan PalDuct has been used in some of the most prestigious projects around the world, due to its known advantages over the traditional galvanised sheet metal ductwork.

Kingspan Insulation has commissioned state of the art manufacturing plants, established workshops in different regions worldwide and also provided specialised and comprehensive training courses conducted by service oriented and experienced trainers well-equipped with the latest technologies, all to ensure quality HVAC ductwork fabrications and installations. This is closely supervised by the representatives from subsidiary companies and sales offices worldwide.



In 2014 Kingspan Group acquired Pal International and assimilated it into its Insulation Division, which subsequently became responsible for the sales and marketing of Kingspan PalDuct products across the globe.

PRE INSULATED DUCT PHENOLIC SYSTEM

What is Kingspan PalDuct Phenolic System?

Kingspan PalDuct Phenolic Panels comprise a fibre-free high performance rigid thermoset phenolic insulation core faced on both sides with a composite foil facing.

Kingspan PalDuct Phenolic Panels are available in a standard thickness of 20mm and 30mm.

Kingspan Insulation offers a complete product line, providing all materials, tools and accessories necessary for the effective fabrication of ductwork from the Kingspan PalDuct Phenolic System.

The ductwork from Kingspan PalDuct Phenolic System is only fabricated by specially trained fabricators who have completed the Kingspan PalDuct Phenolic System training course and who are registered with Kingspan Insulation.



Advantages of Kingspan PalDuct Technology

- Easy to clean and hygienic.
- Environmentally friendly: CFCs and HCFCs -free (zero ODP and GWP ≤ 5 .)
- Clean air: fibre-free insulation core.
- Resistant to fungus growth.
- Space saving: flush-fitting installation possible.
- Low ' λ ' value.
- Fast-track installation: rapid erection combined with single-fix installation.
- On-site fabrication capability.
- No limits to duct sizes.
- High-compressive strength.
- High rigidity/integrity.
- Base material is impermeable to moisture.
- UL Listed as a Class 1 Air Duct to Standard for Safety UL 181 (Factory Made Air Ducts & Air Connectors).

**Fibre-free
Core**




Certifications

Kingspan PalDuct Phenolic System is manufactured to the highest standards under a management system certified to ISO 9001: 2015 (Quality Management System), ISO 14001: 2015 (Environmental Management System), ISO 45001: 2018 (Occupational Health and Safety Management System) and ISO 37301:2021 (Compliance Management System).

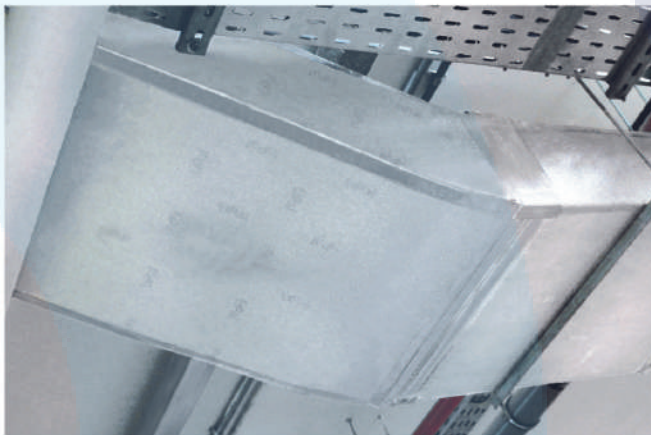
PRE INSULATED DUCT PIR SYSTEM

Introduction

Overview

The heating, ventilation and air-conditioning (HVAC) industry is in the midst of a dynamic era. However, air-distribution ductwork, a critical component of HVAC systems, has remained virtually unchanged since the early 1900s.

Several factors have introduced the need to revolutionise HVAC ductwork. Energy use has continued to escalate, and thus the demand for energy reducing solutions has intensified. Requirements for clean air are becoming increasingly prevalent. Speed of construction has become a valuable asset. Floor space and headroom are under constant pressure.



Kingspan PalDuct systems have been the pioneer in pre-insulated ducting. Pal was the first company in the world to introduce the innovative and revolutionary rigid pre-insulated ductwork as an alternative to sheet metal ductwork. It was invented by Claudio Ferraro of Bologna, Italy in 1965.

Kingspan Insulation has proven the value of its products and Kingspan PalDuct has been used in some of the most prestigious projects around the world, due to its known advantages over the traditional galvanised sheet metal ductwork.



Kingspan Insulation has commissioned state of the art manufacturing plants, established workshops in different regions worldwide and also provided specialised and comprehensive training courses conducted by service oriented and experienced trainers well-equipped with the latest technologies, all to ensure quality HVAC ductwork fabrications and installations. This is closely supervised by the representatives from subsidiary companies and sales offices worldwide.

In 2014 Kingspan Group acquired Pal International and assimilated it into its Insulation Division, which subsequently became responsible for the sales and marketing of Kingspan PalDuct products across the globe.

PRE INSULATED DUCT PIR SYSTEM

What is Kingspan PalDuct Technology?

- Complete line of components and accessories.
- Professional hand tools and automated machinery.
- Specialised training courses for ductwork fabricators.
- "Duct Design Software" to size the ductwork and estimate the material needed.
- Technical Support.



Advantages of Kingspan PalDuct Technology

- Easy to clean and hygienic.
- CFC/HCFC-free: helping to minimise the effects of Ozone Depletion and Global Warming
- Clean air: fibre-free insulation core.
- Resistance to fungus growth.
- Space saving: flush-fitting installation possible.
- Low λ value.
- Fast-track installation: rapid erection combined with single-x installation.
- On-site fabrication capability.
- No limits to duct sizes.
- High-compressive strength.
- High rigidity/integrity.
- Base material is impermeable to moisture.



Specialised Training & Technical Support

Kingspan Insulation provides specialised and comprehensive training courses to appointed distributors and clients in order to ensure that fabricators carry out the fabrication of Kingspan PalDuct Systems for any project directly on-site, assuring fast and more accurate execution of duct installation requirements.

Kingspan Insulation also provides technical support to appointed distributors and clients in order to ensure the consistent quality of HVAC ductwork fabrication and installations.

Certifications

Kingspan PalDuct PIR System is manufactured to the highest standards under a management system certified to ISO 9001: 2015 (Quality Management System), ISO 14001: 2015 (Environmental Management System), ISO 45001: 2018 (Occupational Health and Safety Management System) and ISO 37301:2021 (Compliance Management System).

CFC/HCFC-free Insulation Panel

People, nowadays, are becoming even more conscious of their impact on the environment. Kingspan PalDuct PIR Panel complies to the concern for the increasing Ozone Depletion and Global Warming.

The system uses panels which comprise a polyisocyanurate (PIR) insulation core, that is manufactured with a CFC/HCFC-free blowing agent. The blowing agent used has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).

PRE INSULATED DUCT PIR SYSTEM

What is Kingspan PalDuct Technology?

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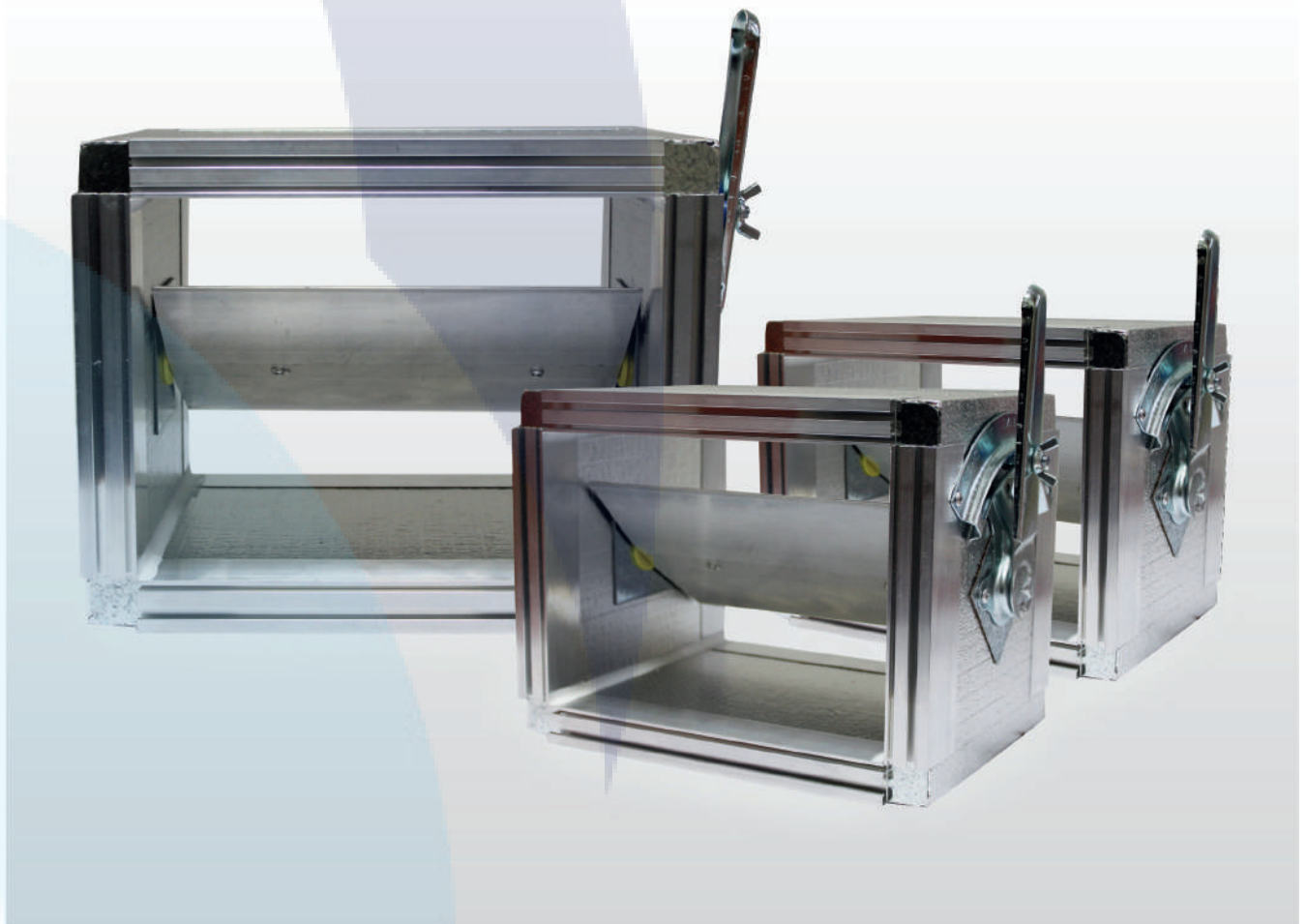
CFC/HCFC-free Insulation Panel

People, nowadays, are becoming even more conscious of their impact on the environment. Kingspan PalDuct PIR Panel complies to the concern for the increasing Ozone Depletion and Global Warming.

The system uses panels which comprise a polyisocyanurate (PIR) insulation core, that is manufactured with a CFC/HCFC-free blowing agent. The blowing agent used has zero Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP).

PRE INSULATED DUCT PHENOLIC VCD

Pal DuctTM Phenolic VCD



Fibre-free
Core



Kingspan

Product Information

Product Description

Kingspan PalDuct Phenolic VCD is made from a high performance rigid thermoset phenolic insulation core, faced on both sides with an aluminium foil reinforced with a glass scrim (outerface embossed / non embossed). The insulation panels are fixed together with a polymer / aluminium profile to form ductwork sections.

The blades are made of aluminium aerofoil, which provides air flow.

The channel frame has a standard width of 125 mm. However, the channel width varies from 100 mm to 150 mm, dependent on the height of the damper and the width of the blade.

For a Kingspan PalDuct Phenolic VCD with a height of less than 200 mm, it must only include a single blade. However, those with a height of more than 200 mm may include multiple blades. In addition, those with a height of more than 200 mm can have either opposite or parallel blades.

Kingspan Insulation LLC

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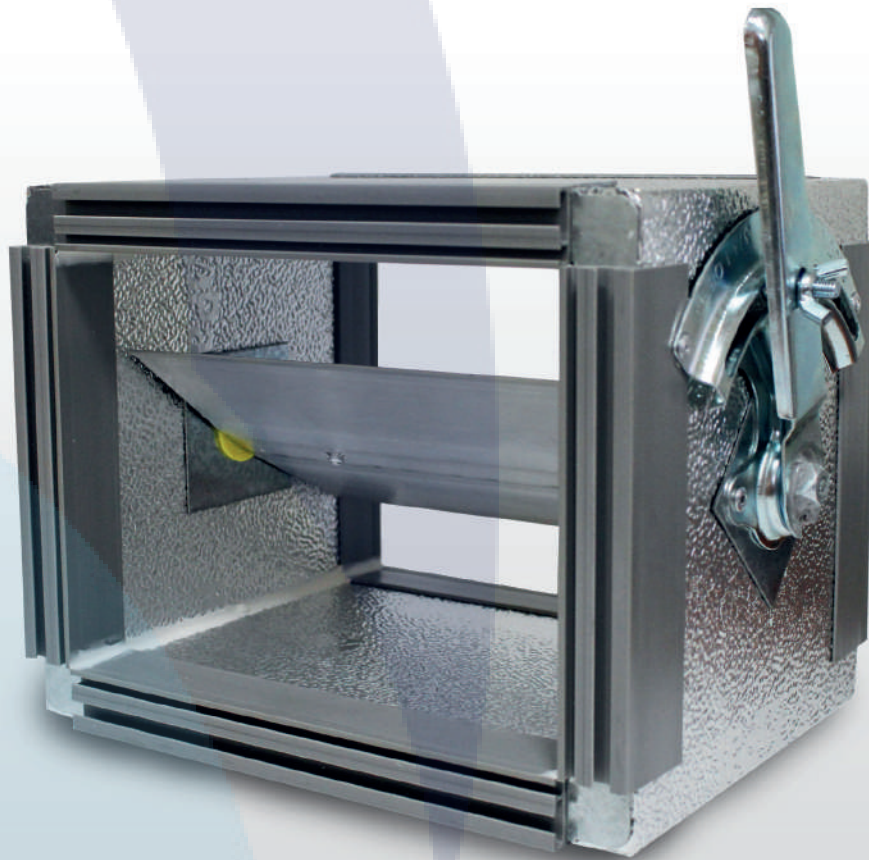


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PRE INSULATED DUCT

PIR VCD

Pal Duct™ PIR VCD



Fibre-free
Core



Kingspan

Product Information

Product Description

Kingspan PalDuct PIR VCD is made from a high performance rigid thermoset polyisocyanurate (PIR) insulation core, faced on both sides with an embossed aluminium foil. The insulation panels are fixed together with a polymer / aluminium profile to form ductwork sections.

The blades are made of aluminium aerofoil, which provides air flow.

The channel frame has a standard width of 125 mm. However, the channel width varies from 100 mm to 150 mm, dependent on the height of the damper and the width of the blade.

For a Kingspan PalDuct PIR VCD with a height of less than 200 mm, it must only include a single blade. However, those with a height of more than 200 mm may include multiple blades. In addition, those with a height of more than 200 mm can have either opposite or parallel blades.

Optional Additions

- ④ Manual control quadrant and position indicator, code Q.
- ④ Control by servo motor directly coupled to the shaft.
- ④ Support plate for a servo motor in place of the quadrant damper code M.
- ④ Bronze brushing code BR.
- ④ Airtight lateral joint, code J.
- ④ Airtight blades, code N.

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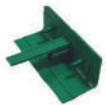
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Kingspan PalDuct Panel Accessories

Kingspan PalDuct Eco System Green Colour Cover in Polymer

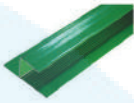


Code	4355
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Kingspan PalDuct Eco System Green Aluminium Chair Profile

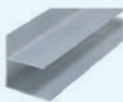


Thickness	20 mm
Code	4067
Nominal Length	4 m

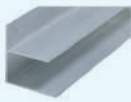


Thickness	30 mm
Code	4083
Nominal Length	4 m

Aluminium F Profile

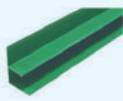


Thickness	20 mm
Code	4017
Nominal Length	4 m

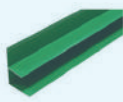


Thickness	30 mm
Code	4044
Nominal Length	4 m

Kingspan PalDuct Eco System Green Aluminium F Profile



Thickness	20 mm
Code	4069
Nominal Length	4 m



Thickness	30 mm
Code	4084
Nominal Length	4 m

Reinforcement Bar in Aluminium



Thickness	14 mm
Code	4450
Nominal Length	4 m

Reinforcement Disc in Aluminium



Code	4454
------	------

Reinforcement Disc in Polymer



Code	4452
------	------

Duct Support



Code	4455
------	------

Tiger Clip



Code	3034
------	------

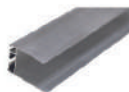
Cross Fixing Device



Code	4453
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PRE INSULATED DUCT ACCESSORIES

Polymer/Aluminium Invisible Profile/ Aluminium Joint Profile

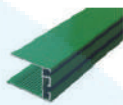


Thickness	20 mm
Code	4010 (Aluminium Invisible Profile) 4100 (Polymer)



Nominal Length	4 m
Thickness	30 mm
Code	4040 (Aluminium Joint Profile) 4041 (Aluminium Invisible Profile)
Nominal Length	4 m

Kingspan PalDuct Eco System Green Colour Polymer/Aluminium Invisible Profile



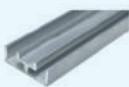
Thickness	20 mm
Code	4063 (Aluminium) 4110 (Polymer)
Nominal Length	4 m

H Bayonet in Polymer



Thickness	20 mm
Code	4105
Nominal Length	4 m

Aluminium Channel



Thickness	30 mm
Code	4080
Nominal Length	4 m

Corner Cover in Polymer



Thickness	20 mm
Code	4350



Thickness	30 mm
Code	4390

Corner Plate for Invisible Profile



Thickness	20 mm
Code	4360



Thickness	30 mm
Code	4400

Steel Corner



Code	4380
------	------

Polymer/Aluminium U Profile

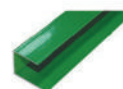


Thickness	20 mm
Code	4013 (Aluminium U Profile) 4101 (Polymer U Profile)
Nominal Length	4 m

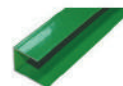


Thickness	30 mm
Code	4042 (Aluminium U Profile)
Nominal Length	4 m

Kingspan PalDuct Eco System Green Aluminium U Profile

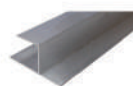


Thickness	20 mm
Code	4065
Nominal Length	4 m

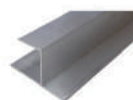


Thickness	30 mm
Code	4082
Nominal Length	4 m

Aluminium Chair Profile



Thickness	20 mm
Code	4015
Nominal Length	4 m



Thickness	30 mm
Code	4043
Nominal Length	4 m



AIR OUTLET

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CONTENT

- Ceiling Diffusers
- Grills & registers
- Linear Slot Diffusers
- Linear Bar Grills & registers
- Perforated Ceiling Diffusers
- Door Transfer Grills
- Exhaust & Fresh Air Louvers
- Gravity Louvers & Non Return Dampers
- Sand Trap Louvers
- Disc Valves
- other Air Outlets

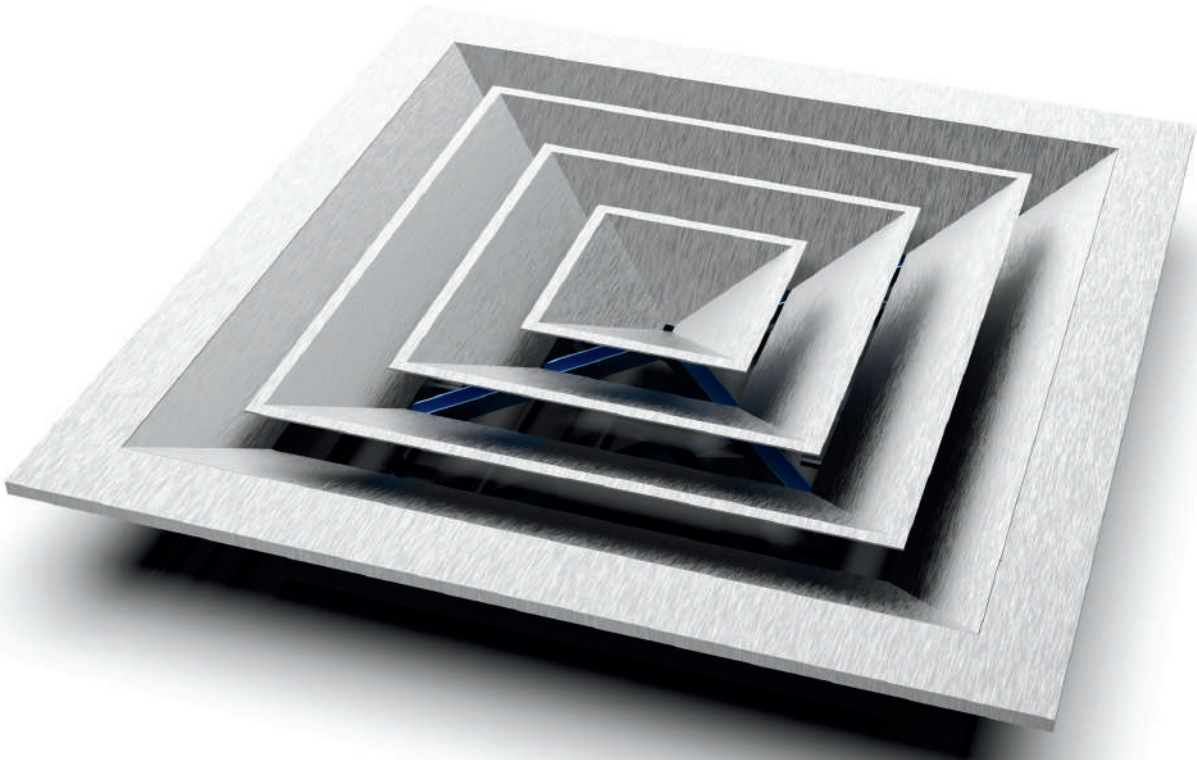


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CEILING DIFFUSERS

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AC GRILLS

CEILING DIFFUSERS

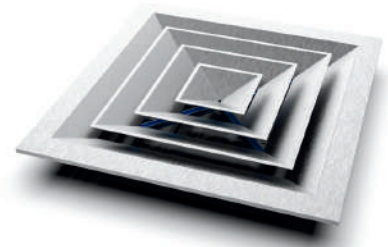
Louvered face , multi directional with removable co

multi direction diffusers represent an optimum solution for the diffusion of air from

ceiling in modern concept areas with a high use of extrude aluminum with which thanks for their precise line they harmonize perfectly . the different shape of the cone (core) in respect of the number of the air flows (1,2,3 & 4 ways) can itself create an aesthetic element to be utilized.

Features & characteristics :

- Material : Frame & inner cones (core)are made of
- Extruded Aluminium Profiles of 6063 Alloy by which
- allow the diffusers to be suitably used for both internal
- & external applications.
- Both frame & inner cones (core) have a general
- wall thickness of 1.5 mm (+ 0.2 mm tolerance).
- Available in both square & rectangular shapes.
- Units are flush mounted & available with different
- pattern arrangements 1,2,3& 4 ways (i.e.different
- ways of air discharge directions).
- Available in wide variety of standard neck sizes
- ranging from 150 x 150 up to 600 x 600 mm in 75
- mm increments.
- The inner cones (core) is fully removable to provide



Easy :Installation, Adjustment of key operated OBD & Maintenance.

- Core exchange by different pattern in future.
- The core is held in place & fixed to the frame by
- two loaded spiral galvanized steel springs.
- The ceiling diffuser projects from the mounting surface
- by 5 mm.
- Recommended for use in rooms with ceiling heights
- ranging from 2.5 m to 4.0 m.
- Accessories
- Mounting Installations
- Surface Finishes.



OPERATING RANGE & QUICK SELECTION TABLE FOR SQUARE DIFFUSERS (MODEL 1,2,3 & 4WS)

SIZE		Noise Level					
mm	inch	Min	<25	>25	<30	>30	40
150x150	6'x6"	50	145	150	175	--	--
225x225	9'x9"	110	280	285	330	--	--
300x300	12x12"	200	280	485	490	555	--
375x375	15x15"	310	615	620	715	720	924
450x450	18"x 18"	450	700	705	800	805	1246
525x525	21"x21"	600	950	955	1070	1075	1526
600x600	24" x24"	795	1090	1095	1390	1575	1992

AC GRILLS

CEILING DIFFUSERS

Louvered face , multi directional with removable co

Pattern Selection :

The pattern selection is determined by the shape of the space to be conditioned, the number of diffusers in it, and the type and the location of lighting fixtures or other devices mounted on the same ceiling.

For Example : a two way square diffuser, opposed blades Model 2WS-O might be used in a corridor areas. On the other hand a larger area can often be divided into squares or rectangles of nearly equal areas, if a diffuser can be located in the center of each of these areas, a pattern of Model 4WS (for square areas) or 4WR (for rectangular areas) could be used for four way discharge.

Selection Procedure :

Having established the position where terminals can be sited, refer to data showing core pattern details and select the suitable core pattern required.

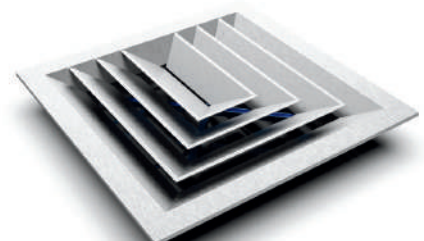
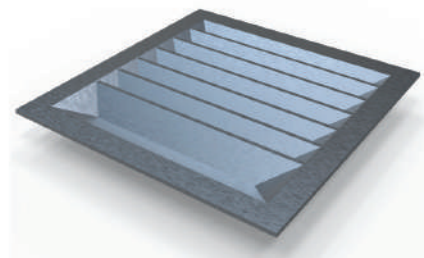
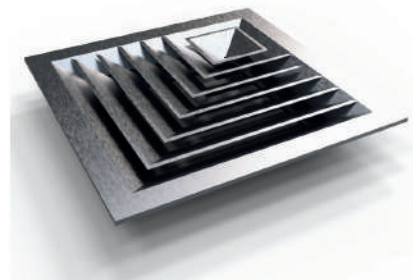
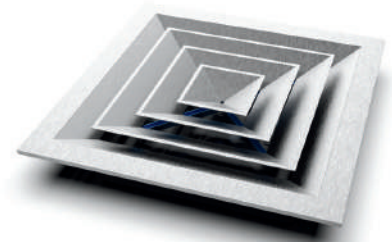
knowing the air volume and throw for each diffuser in question then check :

Recommended limit of air flow rate for each diffuser direction according to ceiling height (table CD-02) with throw of air required lying between the max. and min. values.

Note Noise Level from performance data diagrams and check the same with Noise Level recommendations table.

Determine the total pressure drop from performance data.

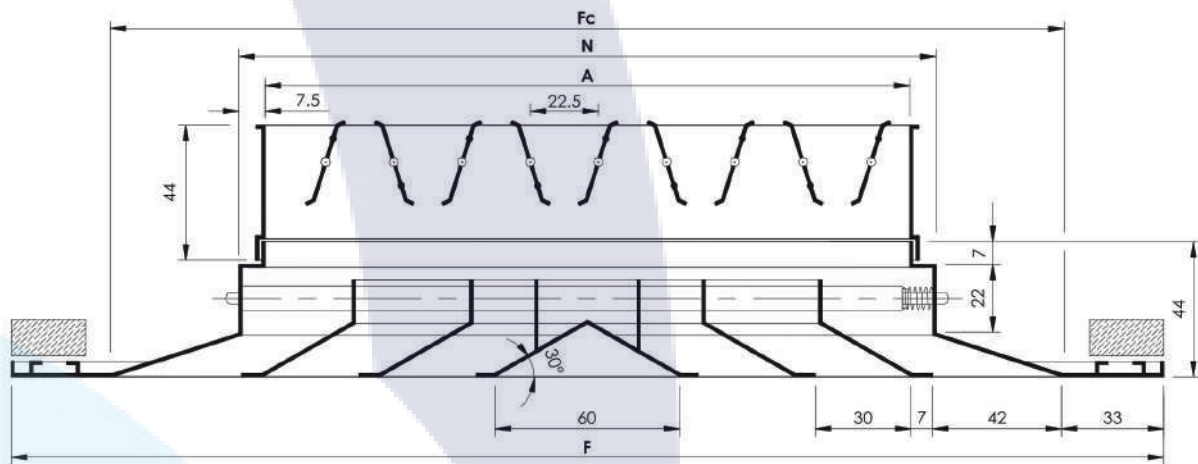
Ceiling Hieght (m)	Max.flow rate for each diffuser direction (L/s)	Max.flow rate for each diffuser direction At (°C)
2.5	100	1
3.0	200	13
3.5	350	15
4	500	16



Louvered face , multi directional with removable co

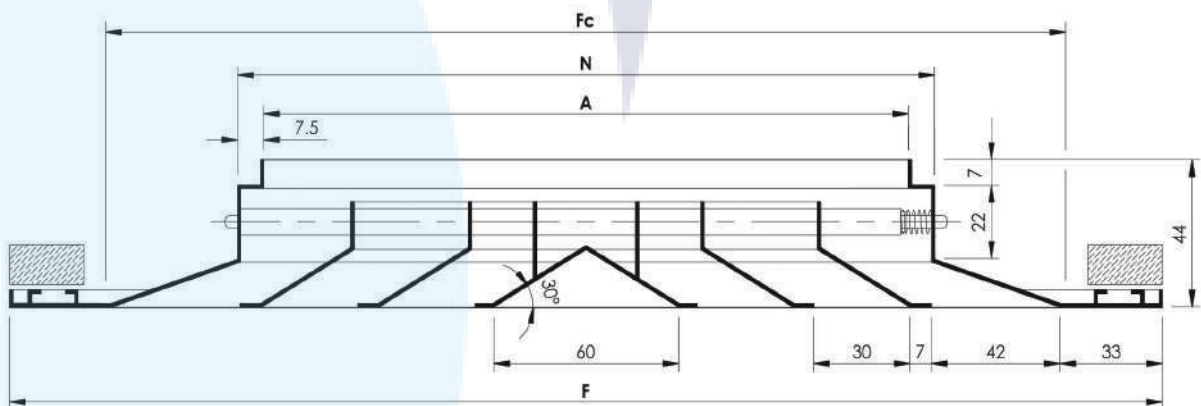
Square Diffusers - Model 4WS Construction and Dimensional Details

Supply Air Diffuser c/w Opposed Blade Damper , Model SAD 4WS



- Diffusers called Supply Air Diffuser and coded as **SAD** are always equipped with Opposed Blade Damper (provided as standard).

Return, Extract or Exhaust Air Diffuser w/o Opposed Blade Damper , Model RAD or EAD 4WS



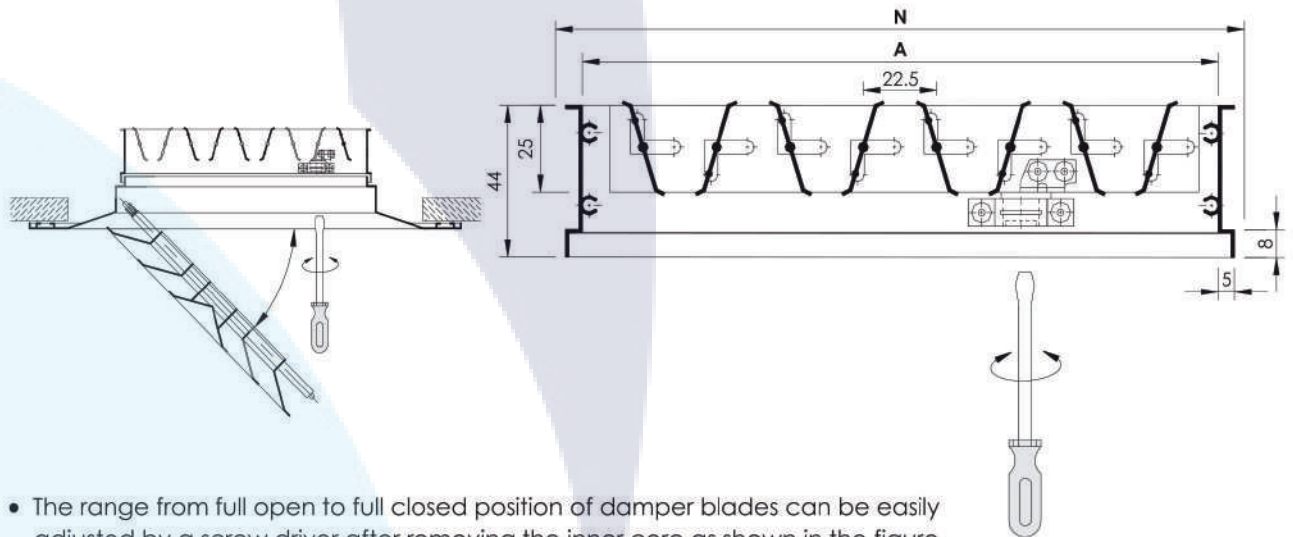
- Unless otherwise specified, Diffusers called Return, Extract or Exhaust Air Diffuser and coded as **RAD** or **EAD** are usually supplied w/o Opposed Blade Damper as a standard.
- In some cases **RAD** or **EAD** are required with Opposed Blade Damper, this will be provided as an option.
- All dimensions are in mm and subject to ± 1 mm tolerance.

Diffuser Accessories

A. Opposed Blade Damper

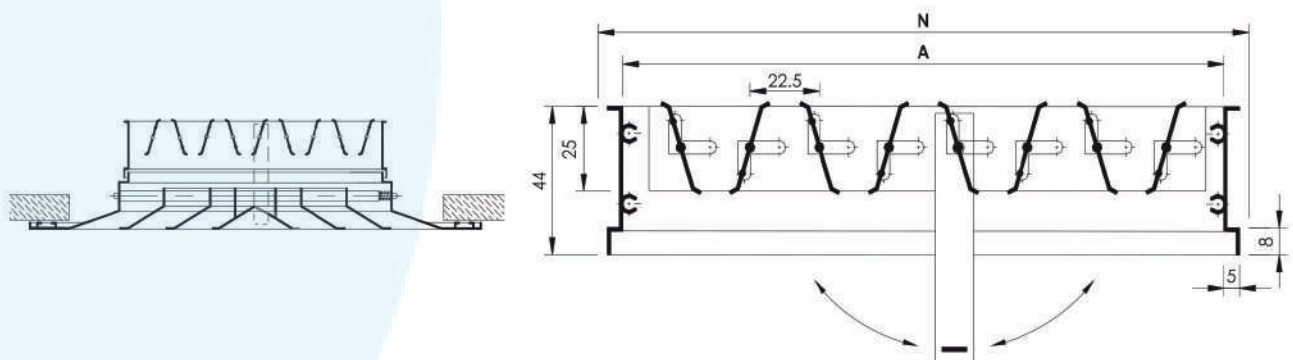
- Frame and Blades are of high quality Extruded Aluminium Profiles construction.
- Blades are designed to rotate opposite to each other.
- The specially designed blades have an overlapping lip which assures a tight closure.
- Generally, the opposed blade damper is attached to the diffuser and fixed to it by means of "S" clips.
- Blades are separated from it's frame by nylon bushes. This method of assembly provides maximum rattle - free performance and eliminates corrosion.
- Usually damper standard surface finish is Aluminium in Mill Finish. Matt black powder coating color is also available on request (as an option).

Opposed Blade Damper - Screw Type Operation (Standard)



- The range from full open to full closed position of damper blades can be easily adjusted by a screw driver after removing the inner core as shown in the figure.

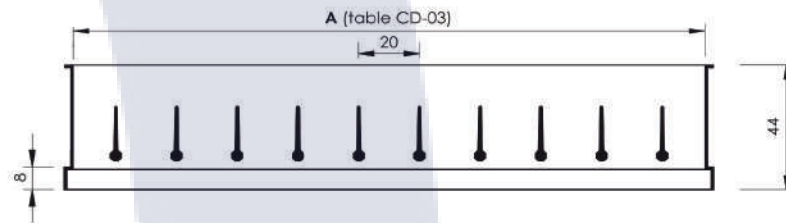
Opposed Blade Damper - Lever Type Operation (Optional)



Diffuser Accessories

B. Equalizing Grid (Optional)

- Frame and Blades are of high quality Extruded Aluminium Profiles construction.
- The aerofoil blades are separated from it's frame by nylon bushes.
- Usually standard surface finish is Aluminium in Mill Finish. Matt black powder coating color is also available on request (as an option).
- For further details, refer to page no. CD-05.



All dimensions are in mm and subject to ± 1 mm tolerance.

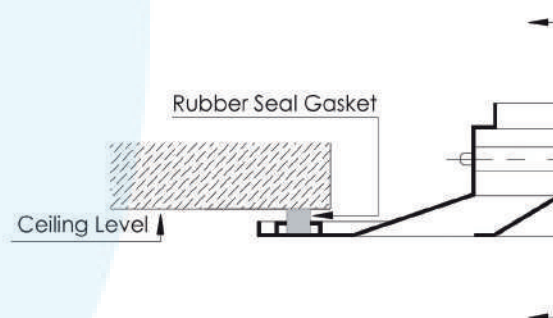
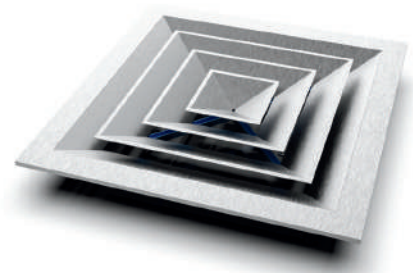
C. Foam Type Rubber Gasket (Optional)

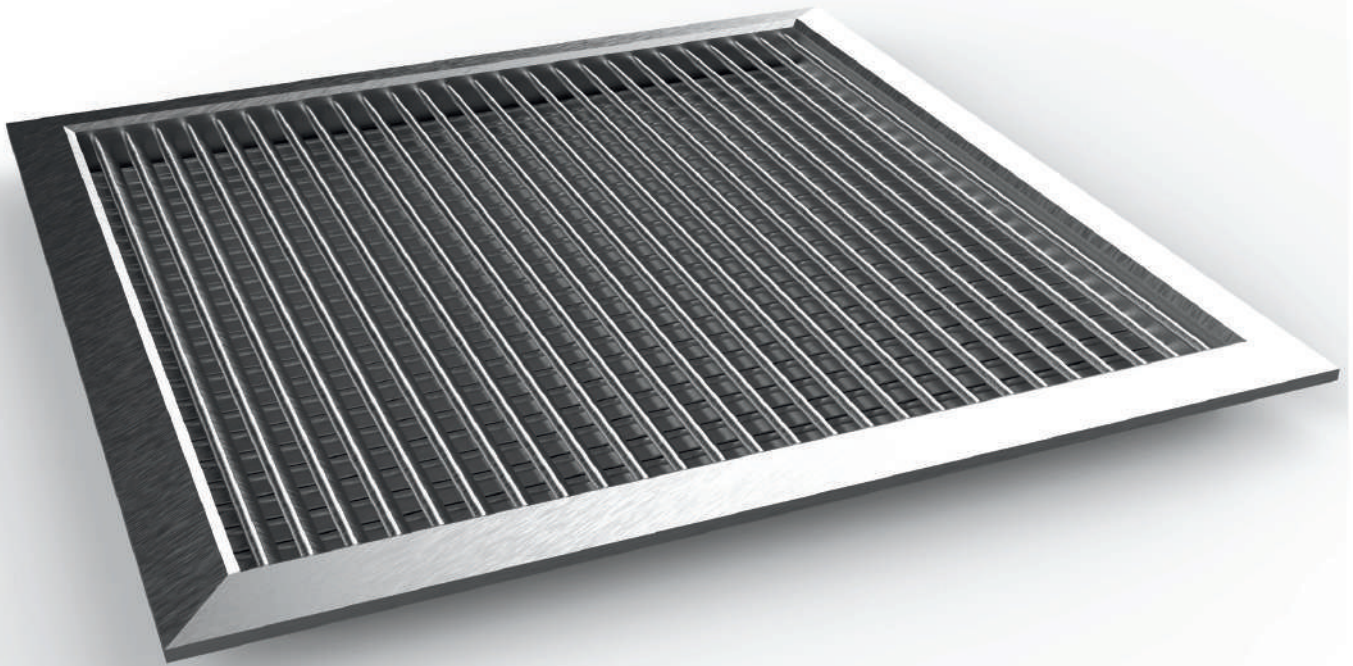
Gasket Type : Single Sided Self - Adhesive Foam.

Gasket Function : Sealing.

Gasket Benefits :

- Stops diffuser rattling.
 - Minimize air infiltration.
 - Stops leaks and pressure losses.
 - Takes up unevenness of ceiling.
 - Easy to apply on site or in factory.
- To be applied around the perimeter of the back side of the diffuser to act as an air seal to prevent pressurised air from escaping from the sides of the diffuser when fixed to the ceiling.





GRILLS AND REGISTERS

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This type of air outlets are the most desirable for the side wall locations. Since they are available with both horizontal and vertical adjustable blades, minor air motion problems can be simply corrected by adjusting the vanes. They are distinguished by their high construction quality, low pressure drops and contained sound levels. Blades can be singularly oriented.

Features & Characteristics :

- Construction : Frame & blades are made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame Flange width : 30 mm.
- Blades : Aerofoil design with 20 mm center spacing as standard.
- The frame is assembled by punching it's four corners by means of G. I. Angles which together create a very robust construction.
- Available in wide variety of standard neck sizes ranging from 300 x 150 up to 1200 x 300 mm in 50 mm increments (other None-Standard sizes are available on request).
- Both the Grilles and Registers are available in single or double blades deflection on which provides air deflection in horizontal and / or vertical planes.
- Blades are individually adjustable to any degree of deflection by hand without the use of special tools.
- Maximum effective areas can be obtained when the blades are set at 0° deflection.
- Blades are separated from it's frame by nylon bushes. This method of assembly provides maximum rattle-free performance and eliminates corrosion.
- A large free effective area grilles can be obtained by using an Eggcrate core with 90% Free Area, see page No. GR-09.
- Grilles combined with Opposed Blade Dampers are called Registers.
- Accessories : see page No. GR-10 & 11.
- Available Fixing Mounting : see page No. GR-12.
- Surface Finishes : see page No. GR-34.

Models Available :

Grilles / Registers Model	Single Deflection Blades	Double Deflection Blades	Horizontal or Vertical Blades	Horizontal or Vertical Front Blades	Opposed Blade Damper	Fixed Blades at 45° Angle
SAR		●		●	●	
SAG		●		●		
RAR , EAR	●		●		●	
RAG , EAG	●		●			●

● Available.

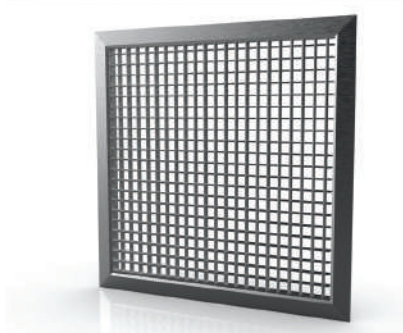
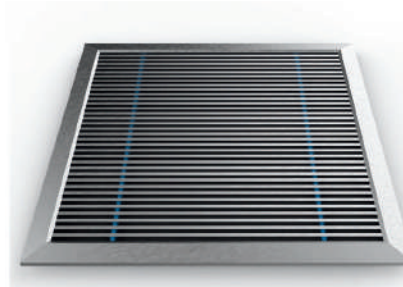
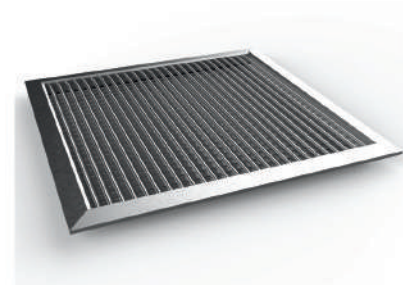
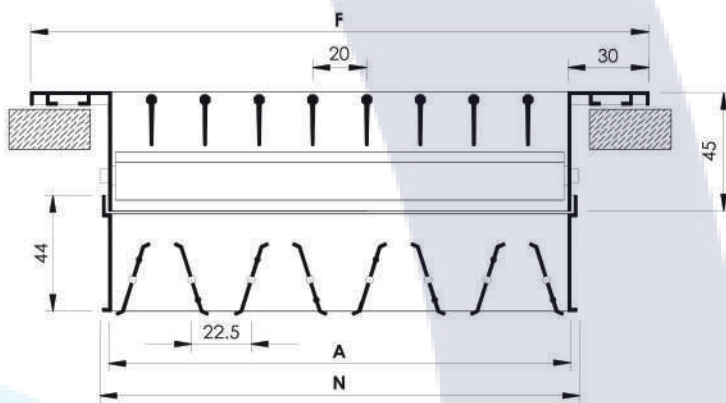


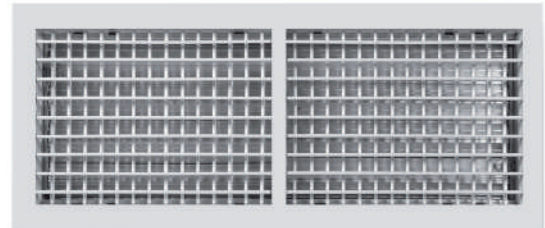
TABLE GR - 01

Double Deflection Registers Construction and Dimensional Details

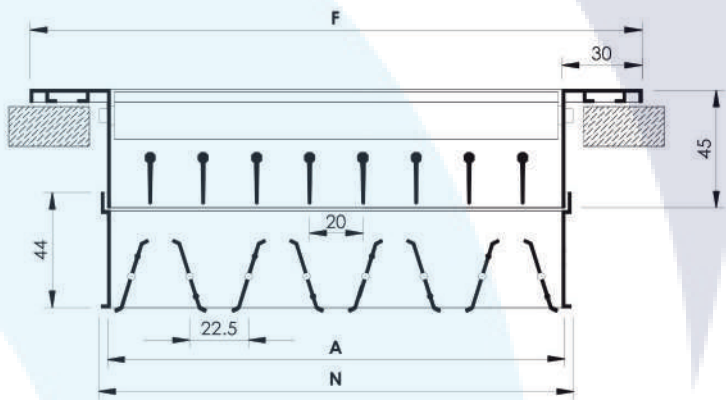
Model SAR HFB DD



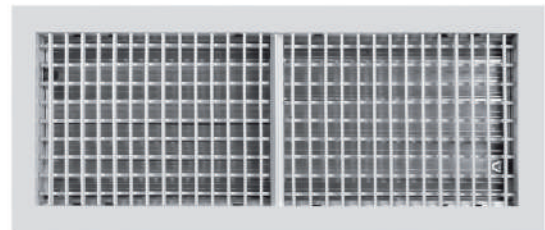
Front Blades Mounting : Horizontal



Model SAR VFB DD



Front Blades Mounting : Vertical



- **SAR** : is Supply Air Register, Double Deflection Blades c/w Opposed Blade Damper.
- Registers called Supply Air Register and coded as **SAR** are always equipped with Opposed Blade Damper (provided as standard).

N : Nominal/Listed Size = Length (L) x Height (H)

A : Actual Size = (L-10) x (H-10)

F : Face Size = (L+50) x (H+50)

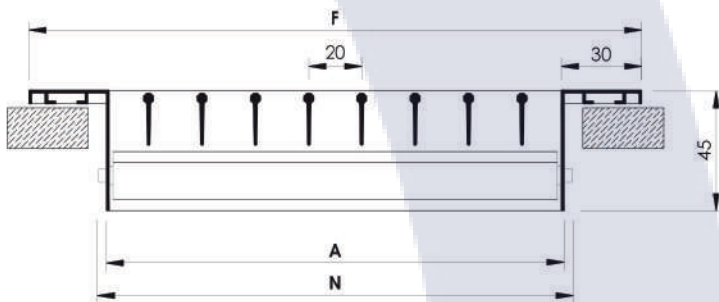
- Registers furnished approximately 10 mm less than the Nominal/Listed Size.
- All dimensions are in mm and subject to ± 1 mm tolerance.

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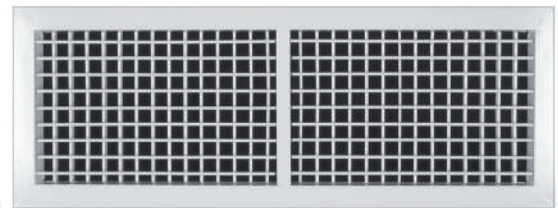
GRILLS AND REGISTERS

Double Deflection Grilles Construction and Dimensional Details

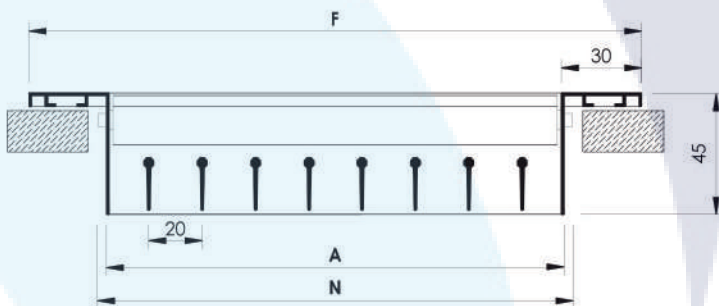
Model SAG HFB DD



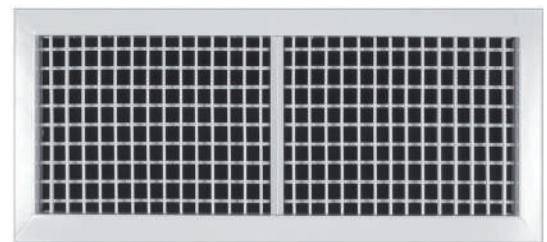
Front Blades Mounting : Horizontal



Model SAG VFB DD



Front Blades Mounting : Vertical



- **SAG** : is Supply Air Grille, Double Deflection Blades w/o Opposed Blade Damper.
- Grilles called Supply Air Grille and coded as **SAG** are usually supplied w/o Opposed Blade Damper.

N : Nominal/Listed Size = Length (L) x Height (H)

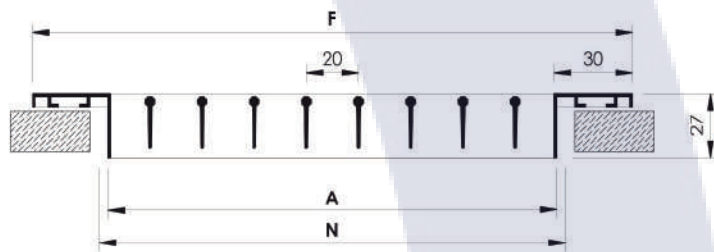
A : Actual Size = (L-10) x (H-10)

F : Face Size = (L+50) x (H+50)

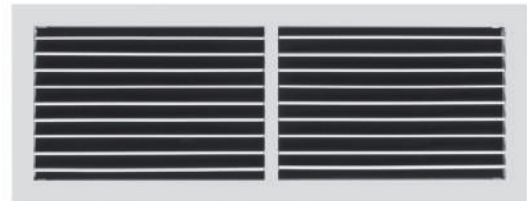
- Grilles furnished approximately 10 mm less than the Nominal/Listed Size.
- All dimensions are in mm and subject to ± 1 mm tolerance.

Single Deflection Grilles Construction and Dimensional Details

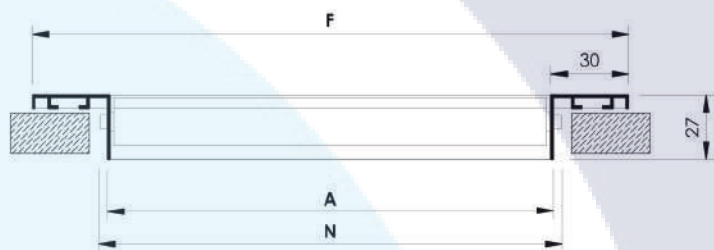
Model RAG HB SD or EAG HB SD



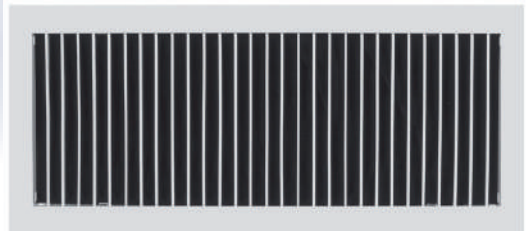
Blades Mounting : Horizontal



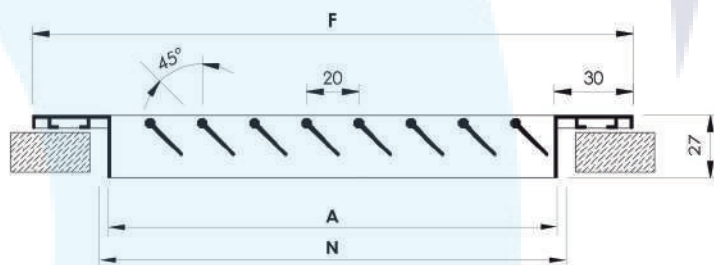
Model RAG VB SD or EAG VB SD



Blades Mounting : Vertical



Model RAG HB SD or EAG HB SD, Fixed Blades 45°



Blades Mounting : Horizontal, set in a fixed position at an angle of 45°



- **RAG / EAG** : is Return, Extract or Exhaust Air Grille, Single Deflection Blades w/o Opposed Blade Damper.
- Grilles called Return, Extract or Exhaust Air Grille and coded as **RAG / EAG** are usually supplied w/o Opposed Blade Damper.

N : Nominal/Listed Size = Length (L) x Height (H)

A : Actual Size = (L-10) x (H-10)

F : Face Size = (L+50) x (H+50)

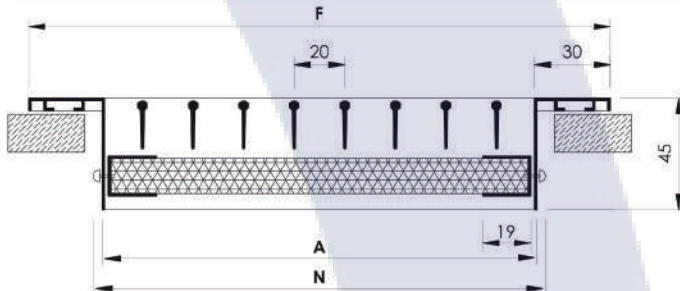
- Grilles furnished approximately 10 mm less than the Nominal/Listed Size.
- All dimensions are in mm and subject to ± 1 mm tolerance.

AC GRILLS

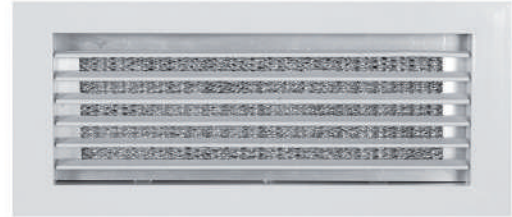
GRILLS AND REGISTERS

Fresh Air Grilles and Registers Construction and Dimensional Details

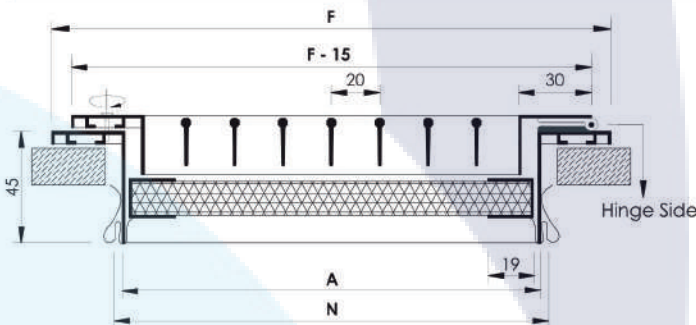
Model FAG C/W FILTER



Blades Mounting : Horizontal (Adjustable or Fixed at 45 ° Angle).



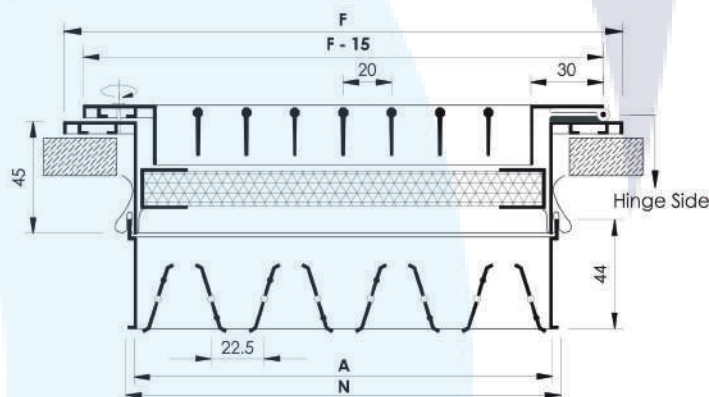
Model FAG C/W FILTER (DOUBLE FRAME)



Blades Mounting : Horizontal (Adjustable or Fixed at 45 ° Angle).
Filter : easily removable after the grille fixed.



Model FAG + D C/W FILTER or FAR C/W FILTER (DOUBLE FRAME)



Blades Mounting : Horizontal (Adjustable or Fixed at 45 ° Angle).
Filter : easily removable after the grille fixed.
OBD : adjustable after removal of the filter.



- **FAG / FAR** : is Fresh Air Grille / Register, Single Deflection Blades c/w Aluminium Washable Filter Media 1/2 " thickness.
- Double Frame Grilles / Registers are provided with door hinge from one side and screw from other side allowing the second frame (inner one) to act as an access door to the Filter and/or Opposed Blade Damper.

N : Nominal/ Listed Size = Length (L) x Height (H)

A : Actual Size = (L-10) x (H-10)

F : Face Size = (L+50) x (H+50)

- Grilles / Registers furnished approximately 10 mm less than the Nominal/ Listed Size.

- All dimensions are in mm and subject to ± 1 mm tolerance.

AC GRILLS

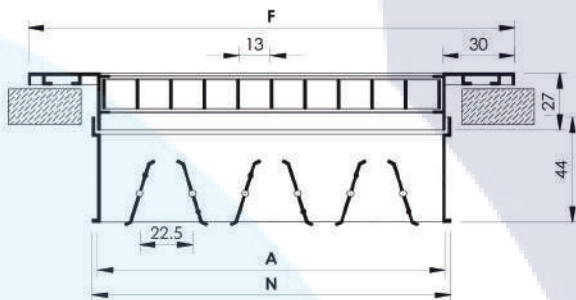
GRILLS AND REGISTERS

Eggcrate Grilles and Registers Construction and Dimensional Details

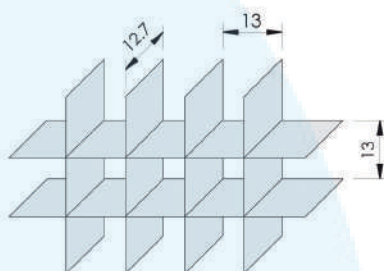
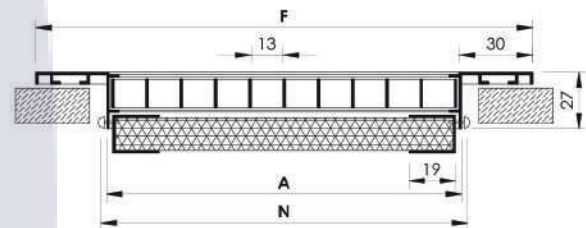
Model ECG



Model ECG + D or ECR



Model ECG + F



Eggcrate Core Design

- The Eggcrate grilles with Aluminium Eggcrate mesh are normally used for the return and recirculation of air inside offices, living areas, commercial centres,..... etc.
- The Particular design of the Eggcrate central core of 13 x 13 mm opening permits the use of a large free surface area (90 % Free Area) without turbulence.
- The Eggcrate grille frame with the channel border is used to fix the central core.
- In respect to traditional grilles with inclined or fixed blades, it's possible to reduce the grilles dimensions while maintaining equal performances, or reduce noise level and pressure drop while maintaining equal dimensions and air flow.
- Eggcrate grilles can be mounted either horizontally or vertically (ceiling or side wall) without affecting their aesthetic form or performance.
- The Eggcrate grilles are available with standard accessories such as Opposed Blade Damper or Aluminium Washable Filter Media of 1/2" thickness.

N : Nominal/Listed Size = Length (L) x Height (H)

A : Actual Size = (L-10) x (H-10)

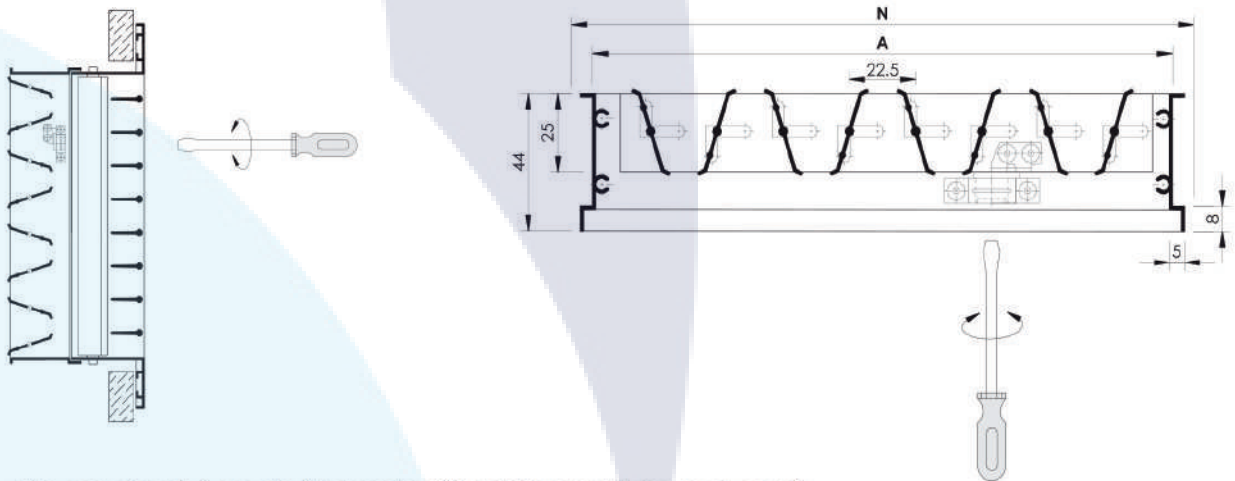
F : Face Size = (L+50) x (H+50)

- Eggcrate Grilles / Registers furnished approximately 10 mm less than the Nominal/Listed Size.
- All dimensions are in mm and subject to ± 1 mm tolerance.

Grilles and Registers Accessories

A. Opposed Blade Damper

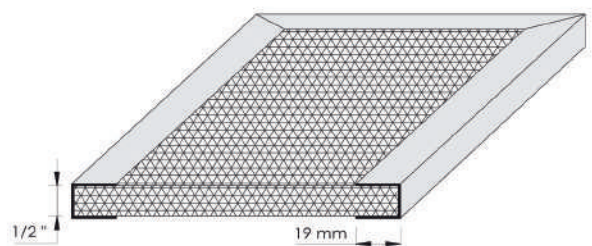
- Frame and Blades are of high quality Extruded Aluminium Profiles construction.
- Blades are designed to rotate opposite to each other.
- The specially designed blades have an overlapping lip which assures a tight closure.
- Generally, the opposed blade damper is attached to the grille and fixed to it by means of "S" clips.
- Blades are separated from it's frame by nylon bushes. This method of assembly provides maximum rattle - free performance and eliminates corrosion.
- Usually Damper standard surface finish is Aluminium in Mill Finish. Matt black powder coating color is also available on request (as an option).
- Screw type operation.

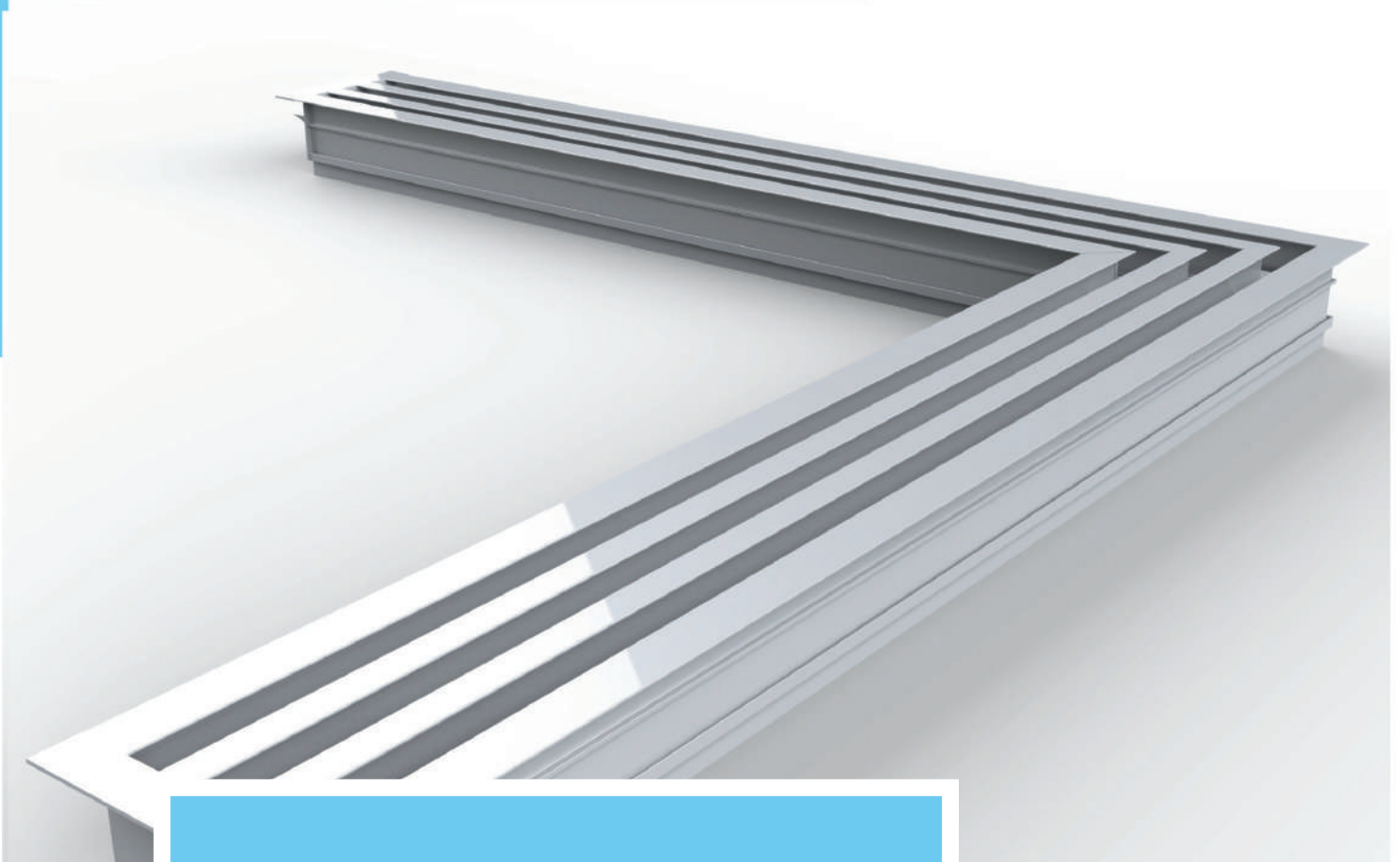


- The range from full open to full closed position of Damper blades can be easily adjusted by a screw driver accessible from the face of the register as shown in the figure.
- All dimensions are in mm and subject to ± 1 mm tolerance.

B. Aluminium Washable Filter

- Construction : Consists of expanded metal Aluminium mesh with unique pattern.
- Application : For collection of big particles of dust. It's used for corrosive atmospheres.
- Features : High dust holding capacity, low resistance filters. It can be cleaned with regular water and live longer live.
- Filter Thickness : Standard 1/2 " thickness provided with Aluminium Profiled U - Channel Frame of 19 mm width.





LINEAR SLOT DIFFUSERS

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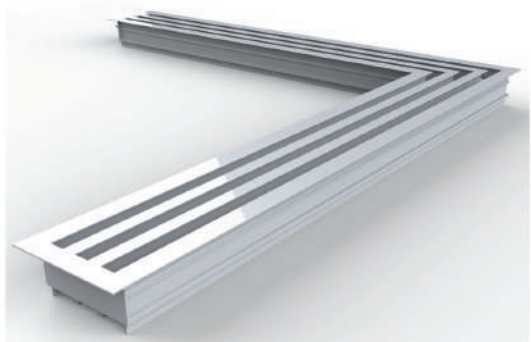
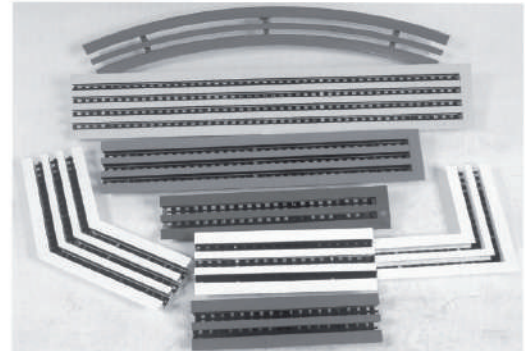
LINEAR SLOT DIFFUSERS

Linear Slot Diffuser have been designed to satisfy architectural concepts that require continuous length applications without compromising air distribution performance. A combination of engineering excellence and architectural appeal in a single product is provided in this type of units.

Linear Slot Diffusers for supply air applications are usually installed in ceilings or high side wall locations, the design of these units features an adjustable supply air pattern and makes them particularly suitable for open office perimeter zones, main floor entrance foyers and lobbies, elevator lobbies, conference rooms, mall atriums and theatres.

Features & Characteristics :

- Construction : Frame, Core & Deflection Blades are made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Hit - and - Miss Damper Material : made of Prepainted Aluminium coils of 3005 Alloy in matt black color finish.
- Frame Flange Width : 28 mm .
- Available in 1 to 8 Numbers of Slots.
- Available in three different slot widths (openings) :
 - 20 mm (3/4 ") as standard.
 - 16 and 25 mm (5/8 " and 1") as option.
- The design of linear slot diffusers provides a full flexibility in volume and air pattern control.
- The Volume Control Damper (Hit - and - Miss Damper) installed in the rear part of the linear slot diffuser consists of two Aluminium strips, the rear one is fixed and the other one is sliding.
- Both the Hit and Miss strips are having 10 x 10 mm square holes. Adjacent holes are spaced in 10 mm distances also.
- Manually and from the slot face opening, the air flow rate can be adjusted by moving the sliding part of the Hit - and - Miss damper left or right.
- The Volume Control Damper (Hit - and - Miss Damper) is designed in a unique way that it can be used as an equalizing grid.
- Air pattern can be directed vertically or horizontally by means of Deflection Blades in fully 180 ° range without changing the air flow rate. These blades can be manually adjusted from slot face opening.
- The Adjustable Deflection Blades allow for the air pattern to be directed along the ceiling , straight down or at some intermediate setting.
- To maintain perfect and unbroken appearance for continuous runs, alignment joining strips are provided in proper lengths and quantities with no extra cost.
- Also, End Cap pieces to be provided in proper sizes as requested with no extra cost.
- Mounting Instructions : see page No. LD - 06.



AC GRILLS

LINEAR SLOT DIFFUSERS

TABLE LD - 01

OPERATING RANGE AND QUICK SELECTION TABLE FOR LINEAR SLOT DIFFUSERS								
SLOT OPENING = 16 mm			SLOT OPENING = 20 mm (Standard)			SLOT OPENING = 25 mm		
No. of Slots	CFM Range		No. of Slots	CFM Range		No. of Slots	CFM Range	
1	50	74	1	70	95	1	85	127
2	95	136	2	119	170	2	155	229
3	125	191	3	165	248	3	252	318
4	163	254	4	212	316	4	265	413
5	201	290	5	259	371	5	345	519
6	248	339	6	314	424	6	403	583
7	271	381	7	350	519	7	473	678
8	297	424	8	386	562	8	530	742

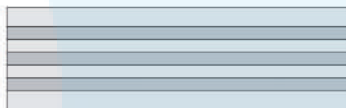
- CFM Values are based on :
 - Length of one metre.
 - Noise Level ranging from 15-25 (dB).
 - Vertical Discharge without wall effect.

TABLE LD - 02

NO. OF SECTIONS PER RUNNING UNIT			
No. of Slots	ONE SECTION	TWO SECTIONS	MULTI SECTIONS
1	≤ 4.0	> 4.0	> 6.0
2	≤ 4.0	> 4.0	> 6.0
3	≤ 4.0	> 4.0	> 6.0
4	≤ 4.0	> 4.0	> 6.0
5	≤ 3.5	> 3.5	> 6.0
6	≤ 3.5	> 3.5	> 6.0
7	≤ 3.5	> 3.5	> 6.0
8	≤ 3.5	> 3.5	> 6.0

- Above arrangements are approximate and subject to change according to order / site conditions.

End Cap / Flange Arrangements



Open Ends



End Cap at One Side



End Cap at Both Sides



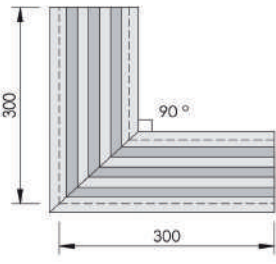
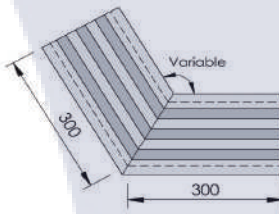
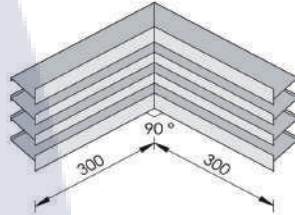
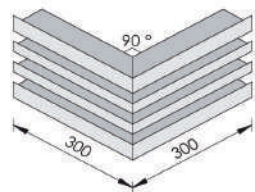
End Cap at Both Terminal Sides (Multi Sections)

AC GRILLS

LINEAR SLOT DIFFUSERS

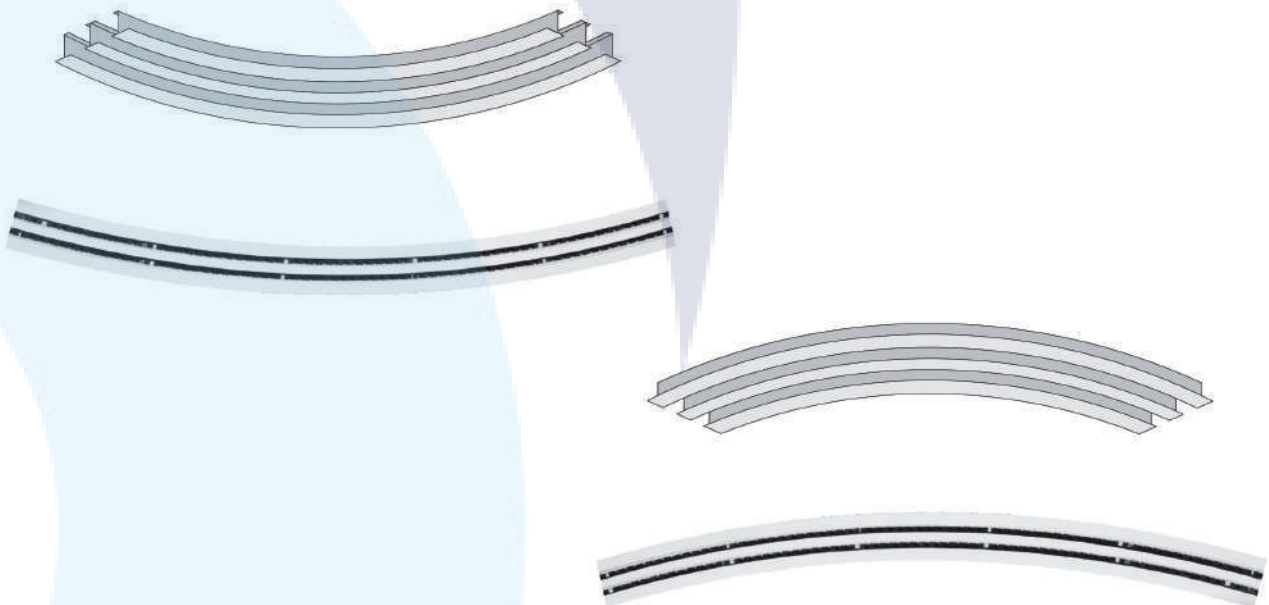
MITERED CORNERS

TABLE LD - 03

Ceiling Mounted Corners		Wall Mounted Corners	
 90 ° Corner Standard	 Variable Angle Corner Optional	 Inside 90 ° Corner Optional	 Outside 90 ° Corner Optional

- Corners are always supplied in 300 mm adjacent sides as standard unless otherwise specified or required.

Linear Slot Diffusers In Curved Shape

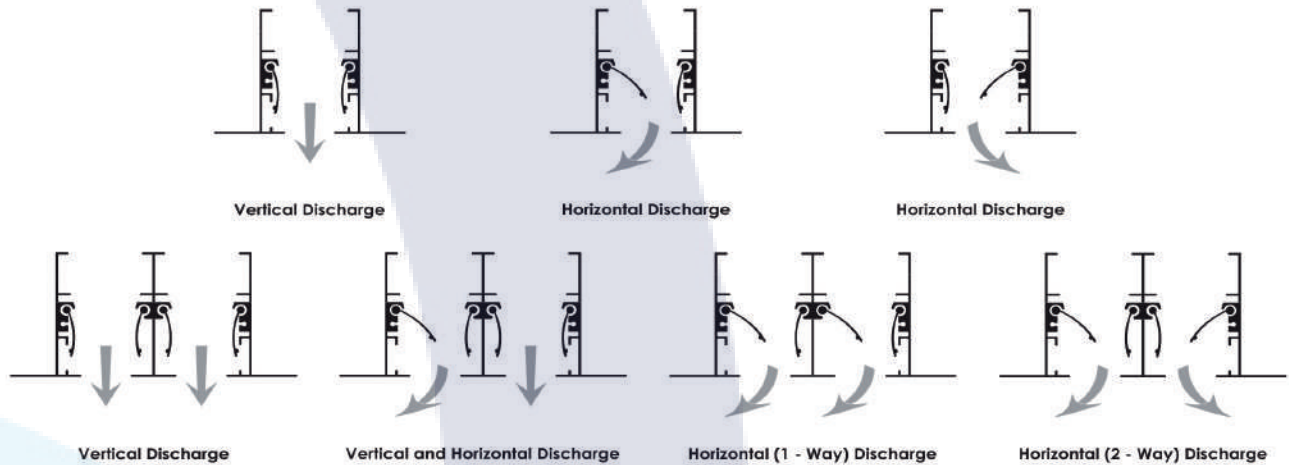


- Curves can be fabricated in minimum curvature radius = 1 mtr.
- Curve applications are not possible for side wall installations.

AC GRILLS

LINEAR SLOT DIFFUSERS

Single and Multiple Slot Pattern Adjustment



- Two deflectors per slot provide an adjustable air pattern of fully 180°.

Construction and Dimensional Details

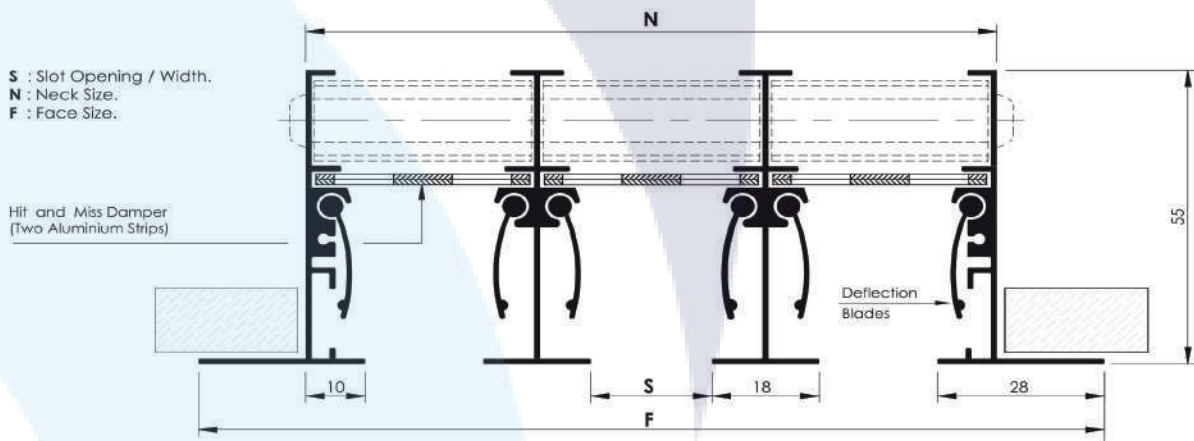


TABLE LD - 04

NECK & OVERALL DIMENSIONS FOR LINEAR SLOT DIFFUSERS

No. of Slots	S = 16 mm		S = 20 mm (Standard)		S = 25 mm	
	N	F	N	F	N	F
1	36	72	40	76	46	82
2	70	106	78	114	90	126
3	104	140	116	152	134	170
4	138	174	154	188	178	214
5	172	208	192	228	222	258
6	206	242	230	266	266	302
7	240	276	268	304	310	346
8	274	310	306	342	354	390

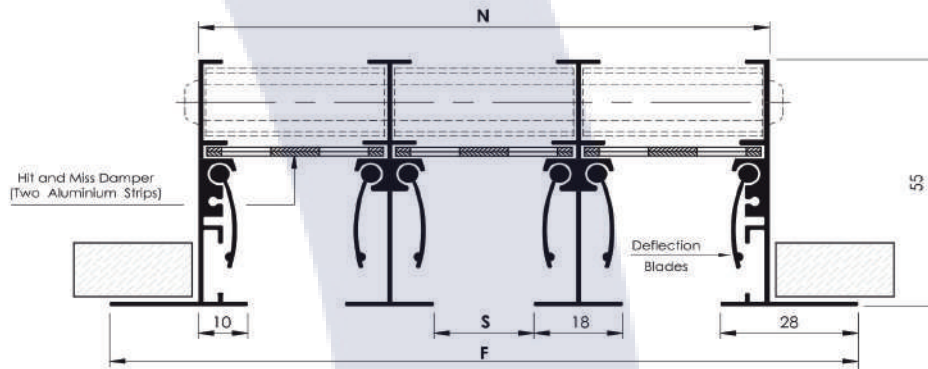
- All dimensions are in mm and subject to ± 1 mm tolerance.

AC GRILLS

LINEAR SLOT DIFFUSERS

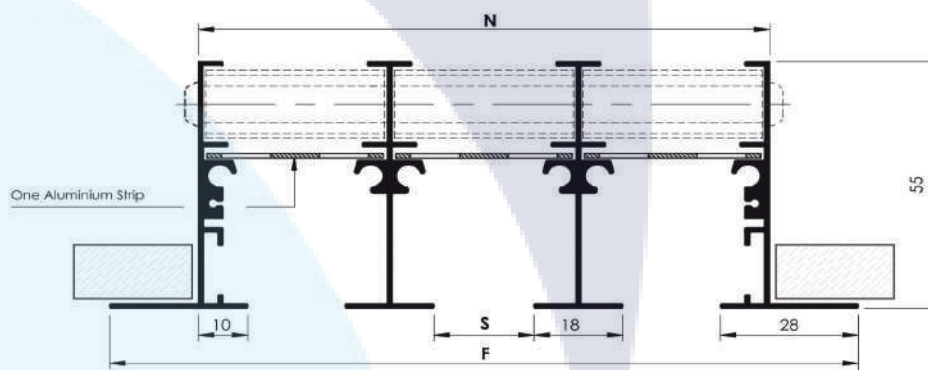
Available Models Construction and Dimensional Details

Model SLD



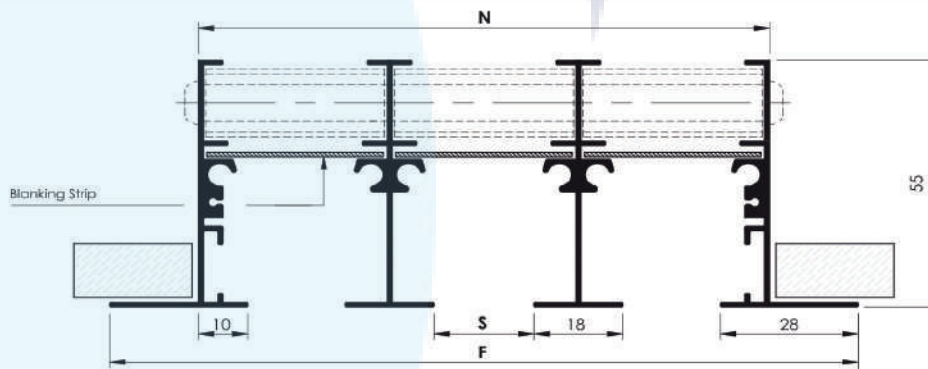
- **SLD** : is Supply Air Linear Slot Diffuser c/w Deflection Blades & Hit and Miss Damper.

Model RLD



- **RLD** : is Return / Extract Air Linear Slot Diffuser w/o Deflection Blades & Hit and Miss Damper.

Model DLD



- **DLD** : is Dummy (Non Active) Linear Slot Diffuser supplied with blanking strip replacing the internal components.
- **S** : Slot Opening / Width.
- **N** : Neck Size.
- **F** : Face Size.
- All dimensions are in mm and subject to ± 1 mm tolerance.



LINEAR BAR GRILLS AND REGISTERS

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AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

The fixed Bar Grilles / Registers are used satisfactorily in locations where flow direction is not critical or can be predetermined. The Linear Grilles / Registers with fixed horizontal bars satisfy the architectural requirements of large areas where continuous input along the walls is requested for wall mounted installations, windowsill and covering furniture for fan coils.

Features & Characteristics :

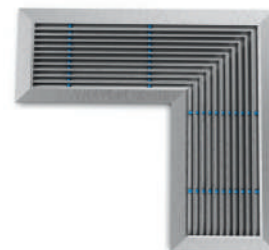
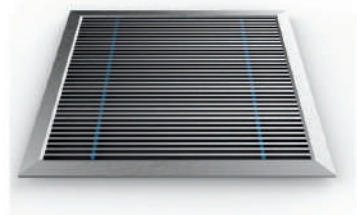
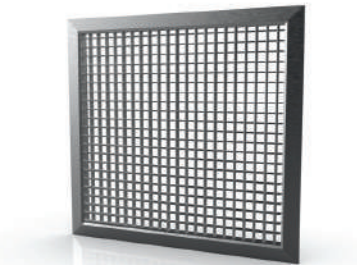
- Construction : Frame & Face bars are made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame Flange width : 30 mm.
- Face Bars (core style) : available in two different bar deflections, the standard one is the 15 ° - 2 way deflection and the optional one is the 15 ° - 1 way deflection (see table No. LG - 02).
- Bar Spacing : Spacing of the adjacent fixed bar blades are set at 12 mm as standard. Also available in 9 and 6 mm spacing as an option (see table No. LG - 02).
- Available with vertical Aluminium aerofoil rear blades fixed to the frame by means of nylon bushes. These blades can be adjusted manually and individually in the vertical plane to achieve the optimum throw deflection and air distribution.
- The frame is assembled by punching it's four corners by means of G. I. Angles which together create a very robust construction.
- For Continuous runs, units are supplied in sections and can be designed to incorporate additional features such as active / dummy sections and mitered corners (see table No. LG - 03, 04, 05 & 06).
- To maintain perfect and unbroken appearance for continuous runs, alignment joining strips are provided in proper lengths and quantities with no extra cost.
- Available in wide variety of standard heights ranging from 50 mm neck size up to 300 mm in 50 mm increments (other none standard sizes are available on request).
- Linear Bar Grilles combined with Opposed Blade Damper are called Linear Bar Registers.
- Mullion Pipes across the fixed bar blades provide additional strength and rigid construction. These Pipes are placed at a distance of 300 mm maximum from each other.
- Accessories : see page No. LG - 07.
- Available Fixing Mounting : see page No. LG - 08.
- Surface Finishes : see page No. LG - 13.

Models Available :

TABLE LG - 01

Linear Bar Grilles / Registers Model	Fixed Bar Blades w/o Vertical Rear Blades	Fixed Bar Blades with Vertical Rear Blades	Opposed Blade Damper
SLR		●	●
SLG		●	
RLR	●		●
RLG	●		

● Available.

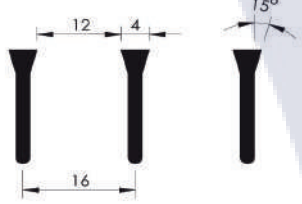
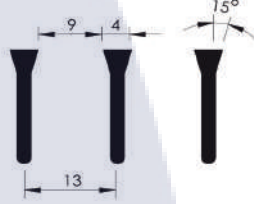
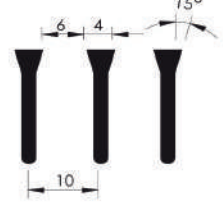
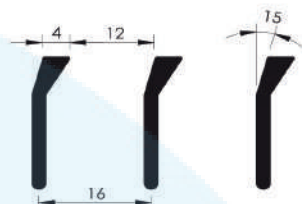
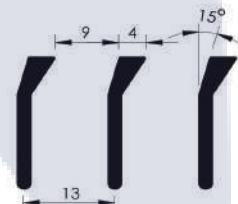
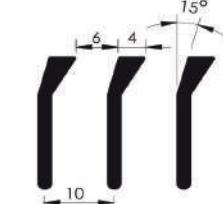


AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

Core Styles (Deflection and Spacing)

TABLE LG - 02

15 ° - Two Way Deflection		
 Standard Spacing = 12 mm	 Optional Spacing = 9 mm	 Optional Spacing = 6 mm
15 ° - One Way Deflection		
 Optional Spacing = 12 mm	 Optional Spacing = 9 mm	 Optional Spacing = 6 mm

• All Dimensions are in mm and subject to ± 0.5 mm tolerance.

TABLE LG - 03

OPERATING RANGE & QUICK SELECTION TABLE FOR LINEAR BAR GRILLES / REGISTERS

WITH VERTICAL REAR BLADES					W/O REAR BLADES				
Standard Heights		Length mm	CFM Range		Standard Heights		Length mm	CFM Range	
Inch	mm				Inch	mm			
4"	100	1000	350	800	4"	100	1000	500	1100
6"	150		550	1250	6"	150		725	1650
8"	200		725	1700	8"	200		950	2100
10"	250		850	2000	10"	250		1250	2500
12"	300		1080	2300	12"	300		1450	3400
4"	100	1500	550	1250	4"	100	1500	700	1600
6"	150		800	1850	6"	150		1075	2350
8"	200		1080	2300	8"	200		1425	3150
10"	250		1300	2600	10"	250		1875	3750
12"	300		1600	3700	12"	300		2175	5100
4"	100	2000	750	1600	4"	100	2000	1000	2200
6"	150		1100	2500	6"	150		1450	3300
8"	200		1450	3400	8"	200		1900	4200
10"	250		1700	4000	10"	250		2500	5000
12"	300		2160	4600	12"	300		2900	6800

• CFM Values are based on Noise Level ranging from 15 - 35 (dB).

AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

TABLE LG - 04

NO. OF SECTIONS PER RUNNING UNIT					
LINEAR BAR GRILLE / REGISTER HEIGHT		ONE SECTION	TWO SECTIONS	MULTI SECTIONS	
mm	Inch				
50	2"	≤ 4.0	> 4.0	> 6.0	
100	4"	≤ 4.0	> 4.0	> 6.0	
150	6"	≤ 4.0	> 4.0	> 6.0	
200	8"	≤ 4.0	> 4.0	> 6.0	
250	10"	≤ 3.5	> 3.5	> 6.0	
300	12"	≤ 3.5	> 3.5	> 6.0	

- Above arrangements are approximate and subject to change according to order / site conditions.

MITERED CORNERS

TABLE LG - 05

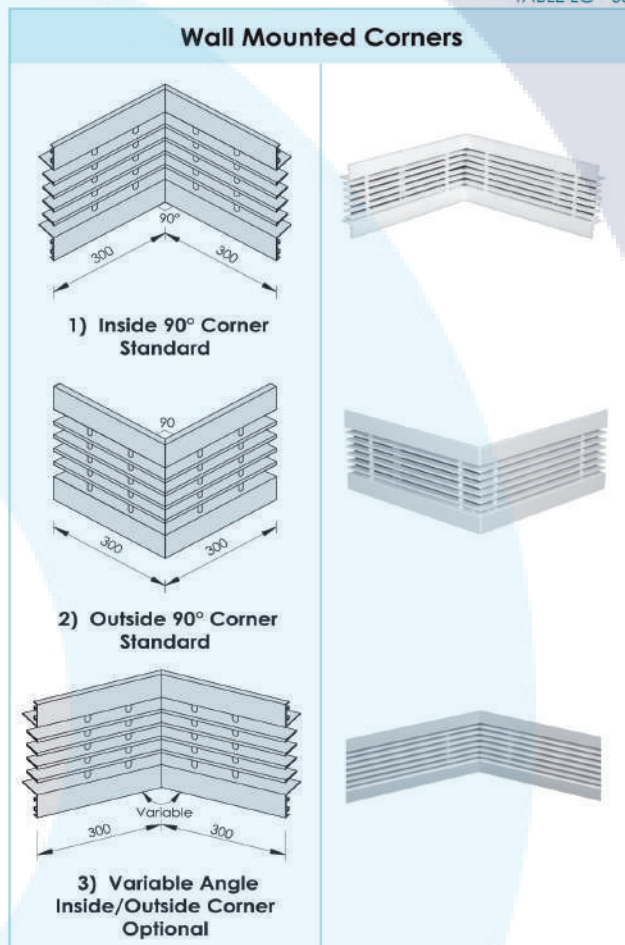
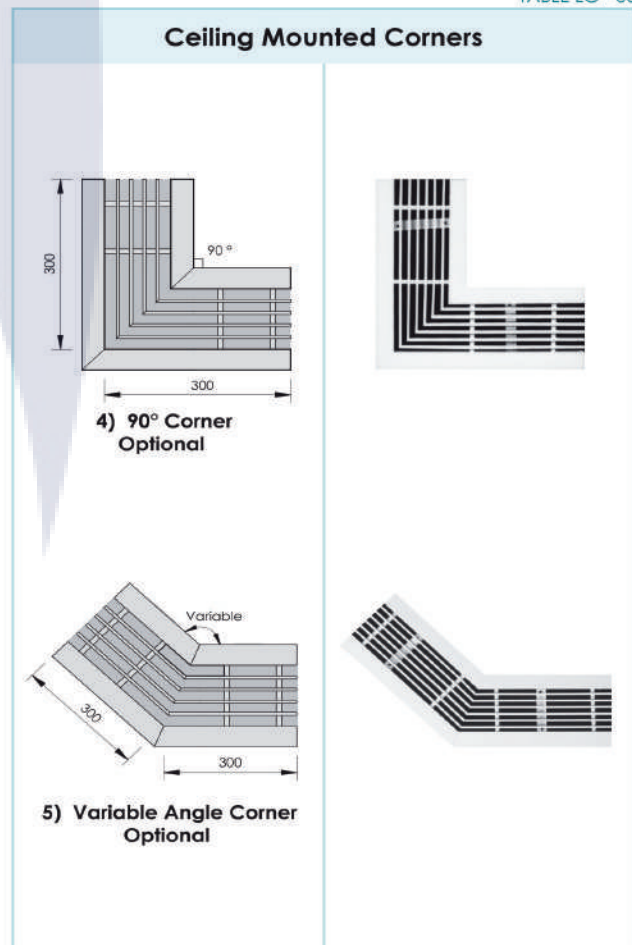


TABLE LG - 06



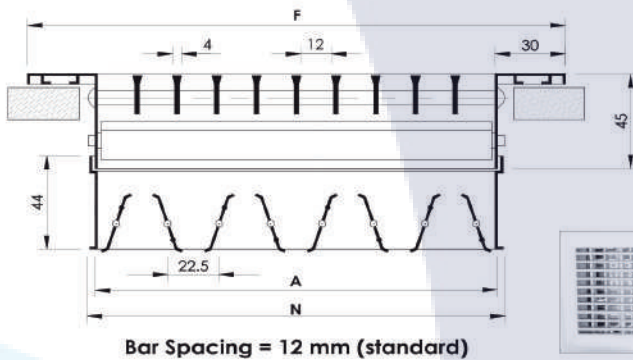
- Corners are always supplied in 300 x 300 mm adjacent sides as standard unless otherwise specified or required.

AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

Linear Bar Registers with Vertical Rear Blades Construction and Dimensional Details

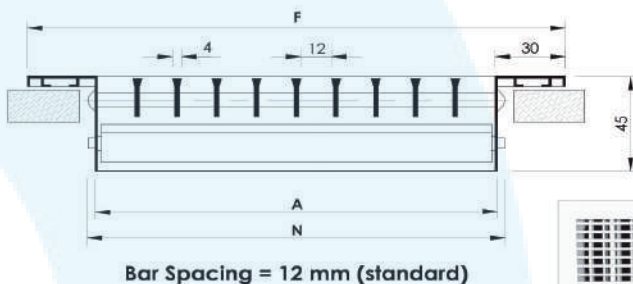
Model SLR DD



- **SLR** : is Supply Air Linear Bar Register, fixed horizontal front bar blades, adjustable vertical rear blades, c/w Opposed Blade Damper.
- Registers called Supply Air Linear Bar Register and coded as **SLR** are always equipped with Opposed Blade Damper (provided as standard).

Linear Bar Grilles with Vertical Rear Blades Construction and Dimensional Details

Model SLG DD



- **SLG** : is Supply Air Linear Bar Grille, fixed horizontal front bar blades, adjustable vertical rear blades w/o Opposed Blade Damper.
- Grilles called Supply Air Linear Bar Grille and coded as **SLG** are usually supplied w/o Opposed Blade Damper.

N : Nominal/Listed Size = Length (L) x Height (H)
A : Actual Size = (L-10) x (H-10)
F : Face Size = (L+50) x (H+50)

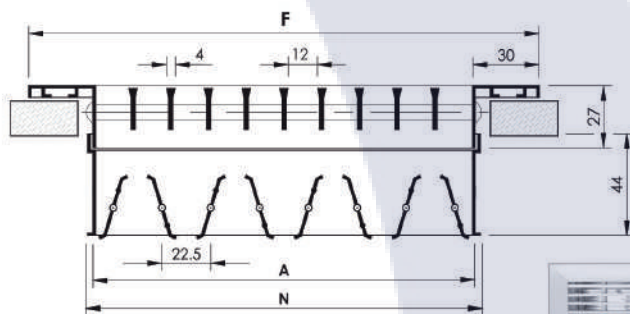
- Linear Bar Grilles / Registers furnished approximately 10 mm less than the Nominal/Listed Size.
- All dimensions are in mm and subject to ± 1 mm tolerance

AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

Linear Bar Registers Without Rear Blades Construction and Dimensional Details

Model RLR SD



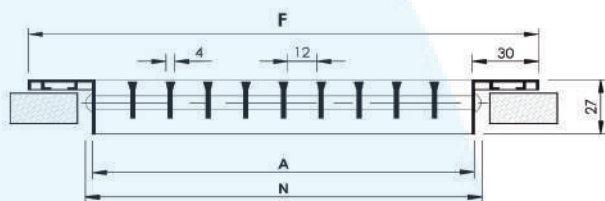
Bar Spacing = 12 mm (standard)



- **RLR** : is Return Air Linear Bar Register, fixed horizontal front bar blades, w/o rear blades, a c/w Opposed Blade Damper.
- Registers called Return Air Linear Bar Register and coded as **RLR** are always equipped w/ with Opposed Blade Damper (provided as standard).

Linear Bar Grilles Without Rear Blades Construction and Dimensional Details

Model RLG SD



Bar Spacing = 12 mm (standard)



- **RLG** : is Return Air Linear Bar Grille, fixed horizontal front bar blades, w/o rear blades and Opposed Blade Damper.
- Grilles called Return Air Linear Bar Grille and coded as **RLG** are usually supplied w/o Opposed Blade Damper.

N : Nominal/ Listed Size = Length (L) x Height (H)
A : Actual Size = (L-10) x (H-10)
F : Face Size = (L+50) x (H+50)

- Linear Bar Grilles / Registers furnished approximately 10 mm less than the Nominal/ Listed Size.
- All dimensions are in mm and subject to ± 1 mm tolerance.

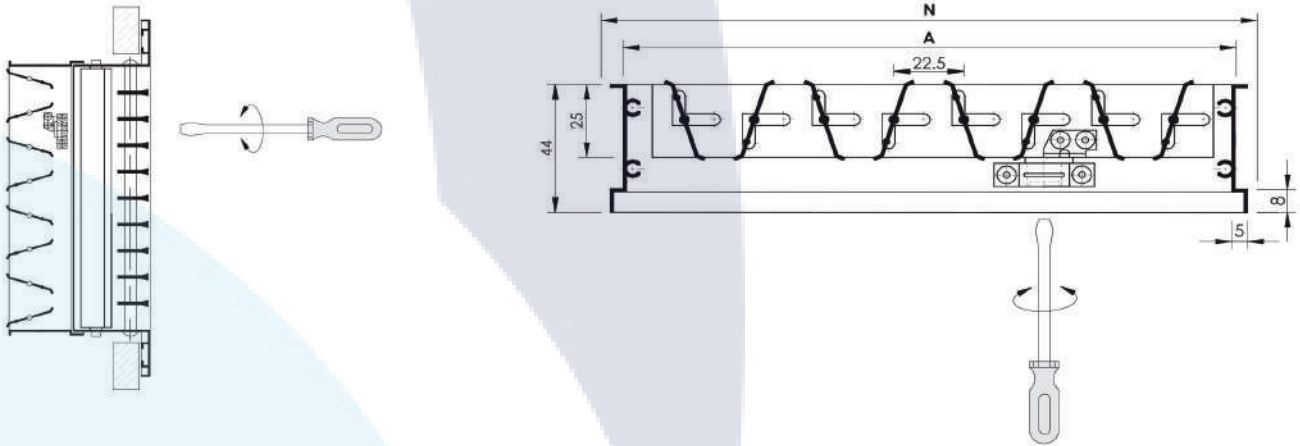
AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

Linear Bar Grilles and Registers Accessories

A. Opposed Blade Damper

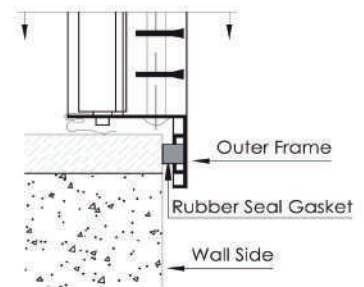
- Frame and Blades are of high quality Extruded Aluminium Profiles construction.
- Blades are designed to rotate opposite to each other.
- The specially designed blades have an overlapping lip which assures a tight closure.
- Generally, the opposed blade damper is attached to the linear bar grille and fixed to it by means of "S" clips.
- Blades are separated from it's frame by nylon bushes. This method of assembly provides maximum rattle - free performance and eliminates corrosion.
- Usually Damper standard surface finish is Aluminium in Mill Finish. Matt black powder coating color is also available on request (as an option).
- Screw type operation.



- The range from full open to full closed position of Damper blades can be easily adjusted by a screw driver accessible from the face of the linear bar register as shown in the figure.
- All dimensions are in mm and subject to ± 1 mm tolerance.

B. Foam Type Rubber Gasket (Optional)

- Gasket type : Single Sided Self - Adhesive Foam.
- Gasket Function : Sealing.
- Gasket Benefits :
 - Stops Linear Bar Grille / Register rattling.
 - Minimize air infiltration.
 - Stops leaks and pressure losses.
 - Takes up unevenness of ceiling.
 - Easy to apply on site or in factory.
- To be applied around the perimeter of the back side of the Linear Bar Grille/Register to act as an air seal to prevent pressurised air from escaping from the sides of the outer frame when fixed to the wall.



AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

The perforated Diffusers Provide a modern silent and draft-free range of diffusers designed to blend effectively with modern ceiling styles and profiles. Offering excellent uniform air distribution patterns the unit comprises of an extruded aluminium frame with a perforated steel sheet face, 50 % free area, and square cones (core) concealed behind the perforated face positioned to give 4, 3, 2 or 1 way discharge as required for the supply units. While return, extract or exhaust units are normally supplied without this feature for straight forward extract application.

These diffusers have high diffusion induction rates, resulting in rapid temperature and velocity equalization of the mixed air mass before the supply air enter the occupied space.

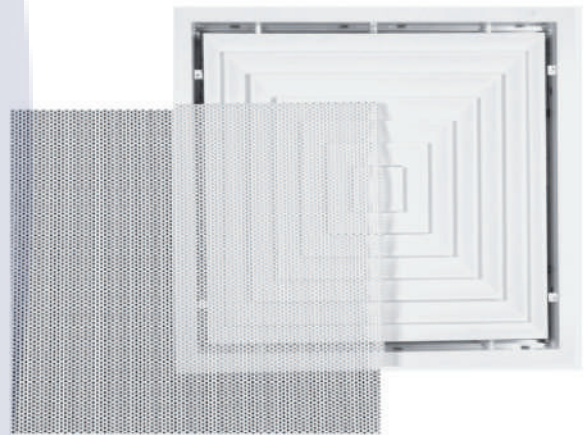
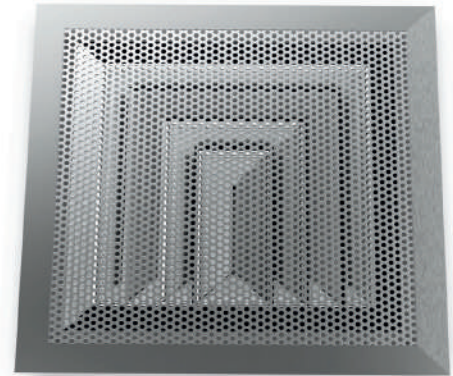
As an alternative use also, the perforated diffusers have been designed to meet architectural requirements as to appearance, module size or other aesthetic considerations.

Features & Characteristics :

- Construction : Frame & inner cones (core) are made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame Flange width : 30 mm.
- Perforated Face : made of G.I. Perforated sheet of 0.8 mm thickness with 4 mm Ø perforation at a pitch of 6 mm to produce 50 % free area.
- Units are flush mounted available with different pattern arrangements 4,3,2&1way (i.e. different ways of air discharge directions).
- Available in wide variety of square neck sizes ranging up to the most popular used 600 x 600 mm module with 595 x 595 mm outer frame size making it suitable for standard false ceiling panel replacement.
- The perforated screen shall be removable from the diffuser face and fitted with screws to facilitate the removal of face screen to provide easy access to :
 - Installation.
 - Adjustment of key operated OBD.
 - Maintenance and cleaning.
 - Core exchange by different pattern in future.

The core is held in place and fixed to the frame by two loaded spiral galvanized steel springs.

- For a better supply air mixing, increase of throw and induction, more sound containing and easy connection to duct system, G.I. Neck adaptor is available as an option.
- Perforated diffusers project from the mounting surface by 5 mm.
- Accessories : see page No. PD-03.
- Mounting Instructions : refer to page No. CD-09, Chapter (1).
- Surface Finishes : see page No. PD-05.

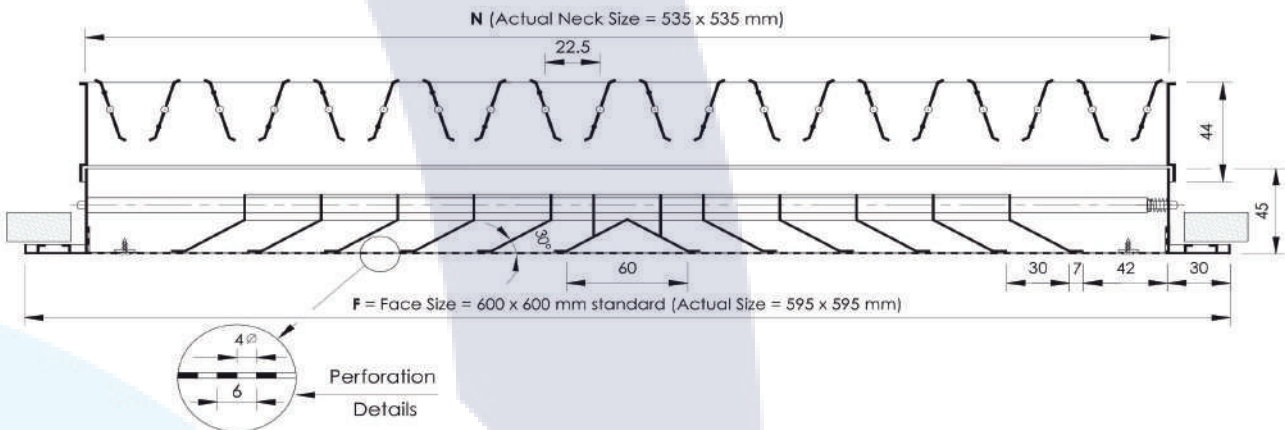


AC GRILLS

LINEAR BAR GRILLS AND REGISTERS

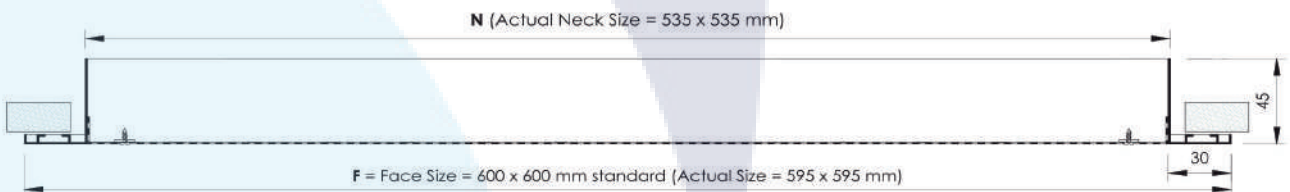
Models Construction and Dimensional Details

Model PSCD 4WS , Standard Module 600 x 600 mm Face Size



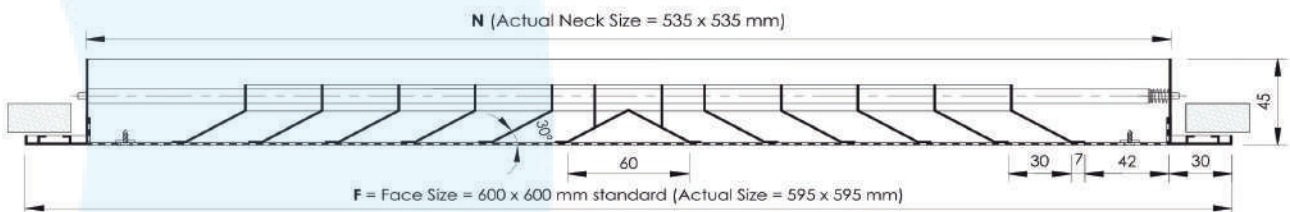
- Diffusers called Perforated Supply Ceiling Diffuser and coded as **PSCD 4WS** are always equipped with 4 - Way Square Pattern and Opposed Blade Damper (provided as standard).

Model PRCD W/O CORE , Standard Module 600 x 600 mm Face Size



- Unless otherwise specified, Diffusers called Perforated Return, Extract or Exhaust Ceiling Diffuser and coded as **PRCD W/O CORE** are normally supplied w/o inner core and Opposed Blade Damper as standard to ensure straight forward extract application.

Model PRCD 4WS , Standard Module 600 x 600 mm Face Size



- In some cases, Return, Extract or Exhaust Perforated Ceiling Diffusers are required with inner core (4 way pattern), this will be supplied on request only as an option and coded as **PRCD 4WS**.

- Other sizes and models are available on request.
- All Dimensions are in mm and subject to ± 1 mm tolerance.



DOOR TRANSFER GRILLS

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DOOR TRANSFER GRILLS

Door transfer Grills of the DG Model are particularly designed to allow the passage of air from a conditioned space to another while preventing vision. They are widely used, not only in doors, panels or partitions, but also in places of conventional exhaust and return air grilles where it's required that the interior of the duct be hidden.

Features & Characteristics :

- Construction : Frame & blades are made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame Flange width : 30 mm.
- Blades : Inverted " V " horizontal cross section louvers arranged to overlap each other to be " Sight – Tight " when viewed from any angle.
- Blades pitch : blades are spaced at a distance of 20 mm.
- The inverted " V " louver cross section not only blocks vision, but also provides additional strength and rigid construction.
- Available in wide variety of standard neck sizes ranging from 200 x 100 up to 1200 x 500 mm (other None – Standard Sizes are available on request).
- Telescopic frame suitable for doors or partitions from 25 – 55 mm thick (Fixed on both sides of the door).
- The frame of the Door Transfer Grille is composed of two parts, one part is the fixed one, holding the core and can be fixed to one side of the door or partition. While the other part, the sliding one, is fixed to the other side of the door or partition. Thus the sliding frame gives the facility of installing this grille to different thicknesses of doors or partitions.
- The large free area (up to 70 %) is capable of transferring high air volumes at minimum pressure loss and noise level.
- The frame mounting holes are dimpled, allowing for a counter-sunk fastener head appearance.
- Available with Foam type Rubber Gasket for air sealing (provided as an option).
- Mounting instructions : see page No. DG – 03.
- Surface Finishes : see page No. DG – 05.

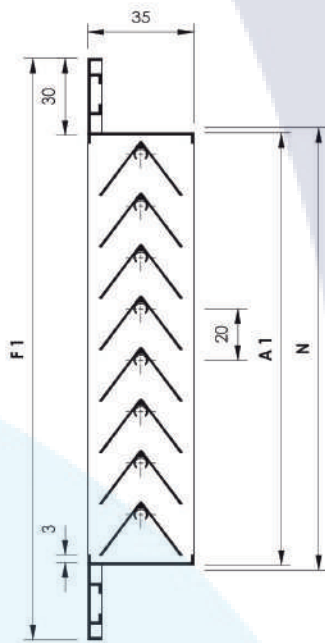


AC GRILLS

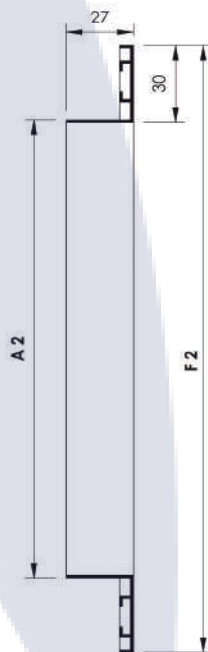
DOOR TRANSFER GRILLS

Construction and Dimensional Details

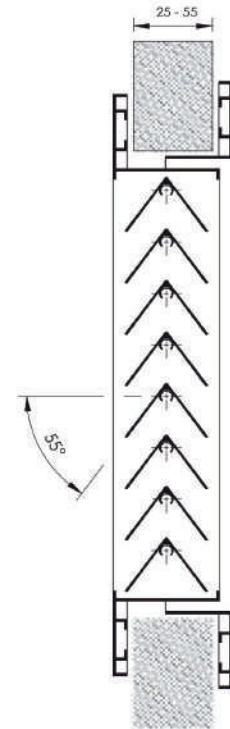
Model DG



Fixed Frame



Sliding Frame

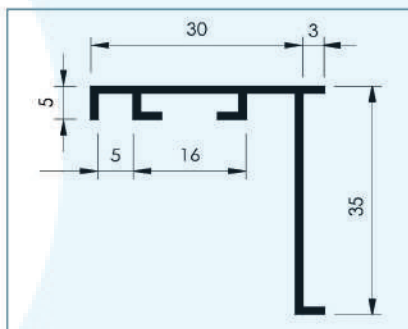


Door Grille

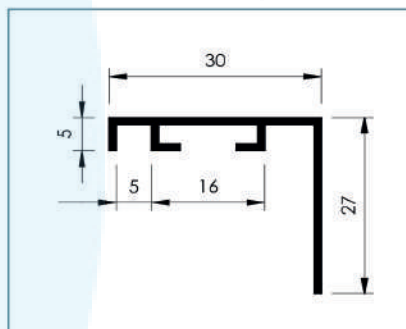
N : Nominal / Listed Size = Length (L) x Height (H) in mm
Case I: Specified height (H) in cm is even figure :
A 1 = Actual Size = (L-10) x (H-15)
F 1 = Face Size = (L+50) x (H+45)
A 2 = Actual Size = (L-5) x (H-10)
F 2 = Face Size = (L+55) x (H+50)

Case II: Specified height (H) in cm is even figure :
A 1 = Actual Size = (L-10) x (H-5)
F 1 = Face Size = (L+50) x (H+55)
A 2 = Actual Size = (L-5) x (H)
F 2 = Face Size = (L+55) x (H+60)

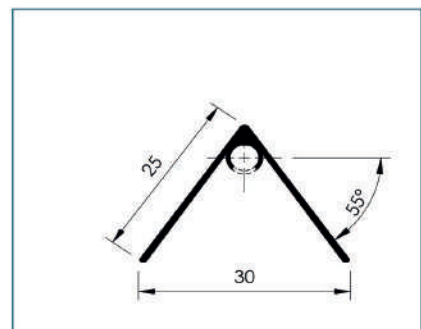
Cross Sectional Drawings for Profiles used in Door Transfer Grilles



Frame Profile Section
Fixed Frame



Frame Profile Section
Sliding Frame



Inverted "V" Blade Profile Section
Door Grilles

• All Dimensions are in mm and subject to ± 0.2 mm tolerance



EXHAUST & FRESH AIR LOUVERS

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EXHAUST & FRESH AIR LOUVERS

The Aluminium Exhaust and Fresh Air Louvers of are used both internally and externally in buildings for the extraction of re – cycled air, intake of external fresh air of the expulsion of contaminated air. The quality of the material used and the particular inclination of the blades at 60° angle downward offer a weather resistant Louvers which gives good protection against the direct ingress of rain water, leaves and birds. Can also be used directly installed on walls for the ventilation of industrial areas. Also suitable for the use with an adjustable or overpressure damper for air flow and pressure control.

Features & Characteristics :

- Construction : Frame & blades are made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame Flange width : 30 mm.
- Blades : Fixed Louverd type arranged horizontally and inclined downward to 60 ° angle in order to :
 - prevent the ingress of rain water.
 - Prevent the ingress of light.
 - Block vision while straight viewing.
 - Be suitable for external walls and screening applications.
- The blades are positioned on 25 mm minimum centers up to 35 mm maximum centers resulting in a high free area to provide minimum resistance to air flow.
- Available in wide variety of neck sizes with 100 x 100 mm minimum single section size and 2 mtr maximum single section height. Louvers height exceeding 2 mtr to be fabricated and supplied in multiple sections depending on length and height dimensions as well as site conditions.
- The assembly of multiple sections is unlimited, where each section operates independently.
- Multiple sections : Supplied as separate sections and assembly by others on site.
- The Fresh Air Louver is suitable for the use in air inlet of fresh air ducts and air handling units. It's also suitable for the use at dirty air exhaust discharge.
- Wire Mesh screen of galvanized steel is attached to the interior face of the louver as an option, mesh size 3 x 3 mm.
- Exhaust Air Louvers are available with different type of attachments such as :
 - Opposed Blade Damper (Model EAL + D).
 - Aluminium Filter (Model FAL c/w Filter).
 - Both the Damper and Filter (Model FAL + D c/w Filter).
- Available with Foam type Rubber Gasket for air sealing (provided as an option).
- Mounting instructions : see page No. EL-04
- Surface Finishes : see page No. EL-08.

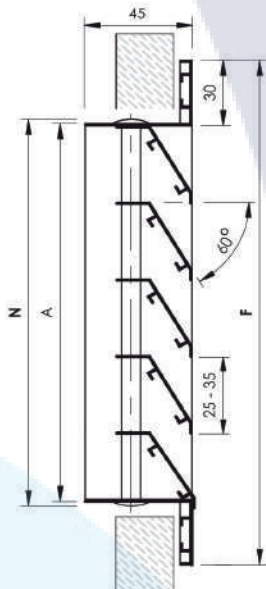


AC GRILLS

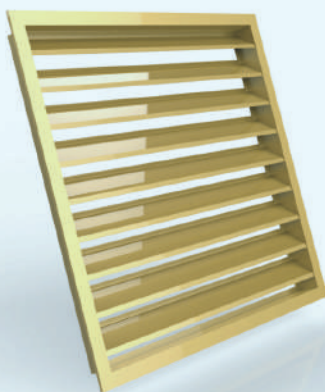
EXHAUST & FRESH AIR LOUVERS

Exhaust Air Louvers Construction and Dimensional Details

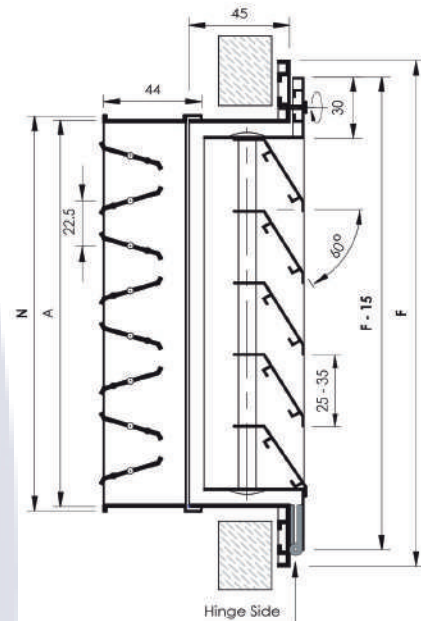
Model EAL



- Wire Mesh (optional).



Model EAL + D (Double Frame)



- Wire Mesh (optional).
- For Opposed Blade Damper details and construction refer to chapter (1) or (2).
- Double Frame Louvers are provided with door hinge from one side and screw from other side allowing the second frame (inner one) to act as an access door to the Opposed Blade Damper.



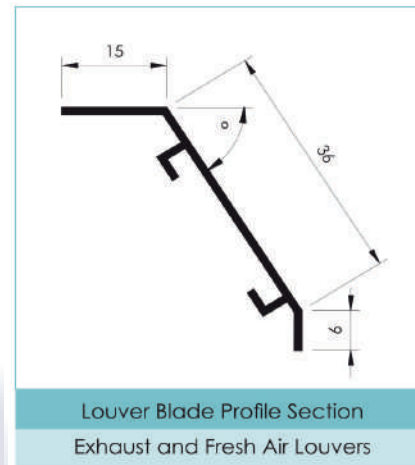
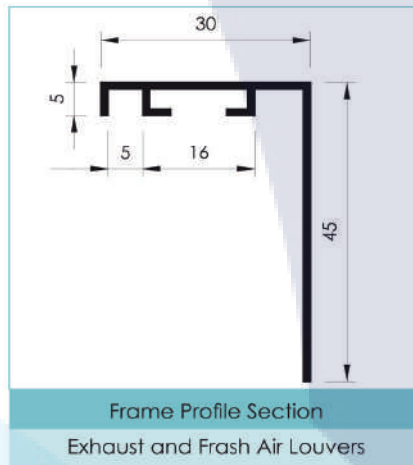
N : Nominal/Listed Size	= Length (L) x Height (H)
A : Actual Size	= (L-10) x (H-10)
F : Face Size	= (L+50) x (H+50)

- Exhaust Air Louvers furnished approximately 10 mm less than the Nominal/Listed Size.
- All Dimensions are in mm and subject to ± 1 mm tolerance.

AC GRILLS

EXHAUST & FRESH AIR LOUVERS

Cross Sectional Drawings for Profiles used in Exhaust and Fresh Air Louvers



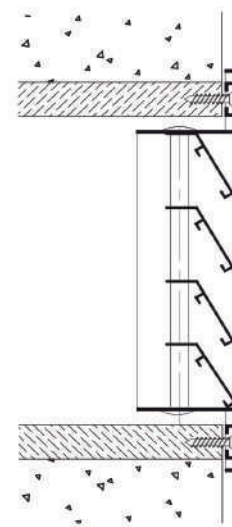
- All Dimensions are in mm and subject to ± 0.2 mm tolerance.

Available Fixing Mounting



A. Concealed Fixing (Spring Clip Mounting)

The Louver is fixed by means of spring clips to the wall or partition where no screws are visible.



B. Face Screw Fixing

The Louver is fixed to the wooden frame by means of visible screws.



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GRAVITY LOUVERS & NON RETURN DAMPERS

Gravity Louvers **GL** and Non Return Dampers **NRD** are generally used in intake and discharge applications in residential, commercial and industrial ventilated systems. GL's and NRD's guarantee that the automatic opening of the blades will occur when the fan or system is switched on and equally will close when switched off in order to avoid passage of air when the system is closed, i.e preventing the reverse of air flow. They are also used to maintain certain pressure in pressurized treated areas with respect to others, thus only when pressure is exceeding the designed limit, blades will automatically open to discharge or relieve the excessive air.

GL's and NRD's are also commonly named as "Pressure Relief Dampers", "Over Pressure Dampers", "Back Draft Dampers" or "Gravity Shatters" according to the purpose of their use.

Features & Characteristics

Gravity Louvers (GL) :

- Frame construction : made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame Flange width : 30 mm.
- Blades : fabricated from Aluminium sheet of 0.5 mm thickness.
- Aluminium Blades are fixed to the frame through a galvanized steel rods (axles) for rigid construction.
- Aluminium Blades are fitted with nylon bushes for corrosion resistance, rattle free and smooth operation.
- The blades are positioned on 45 mm minimum centers up to 100 mm maximum centers resulting in a high free area to provide minimum resistance to air flow.
- Available in wide variety of neck sizes with 100 x 100 mm minimum single section size and 2 mtr maximum single section height. Louvers height exceeding 2 mtr to be fabricated and supplied in multiple sections depending on length and height dimensions as well as site conditions.
- The assembly of multiple sections is unlimited where each section operates independently.
- Multiple sections : Supplied as separate sections and assembly by others on site.
- Usually used for external or internal wall mounting installations.

Non Return Dampers (NRD) :

- Casing construction : made of 18 or 20 gauge formed galvanized steel sheet.
- Casing Flange width : 25 - 30 mm (Model NRD - F).
- Blades : fabricated from Aluminium sheet of 0.5 mm thickness in mill finish.
- Aluminium Blades are fixed to the frame through a galvanized steel rods (axles) for rigid construction.
- Aluminium Blades are fitted with nylon bushes for corrosion resistance, rattle free and smooth operation.
- The blades are positioned on 50 mm minimum centers up to 100 mm maximum centers resulting in a high free area to provide minimum resistance to air flow.
- Available in wide variety of neck sizes with 100 x 100 mm minimum single section size and 2 mtr maximum single section height. Louvers height exceeding 2 mtr to be fabricated and supplied in multiple sections depending on length and height dimensions as well as site conditions.
- All joints are welded and sealed for air tight operation and protected by Aluminium spray paint.
- Available in 3 types / models according to casing design. Slip, Clip and Flange type as shown in page No. GL-03.
- Usually used for duct mounting installations.

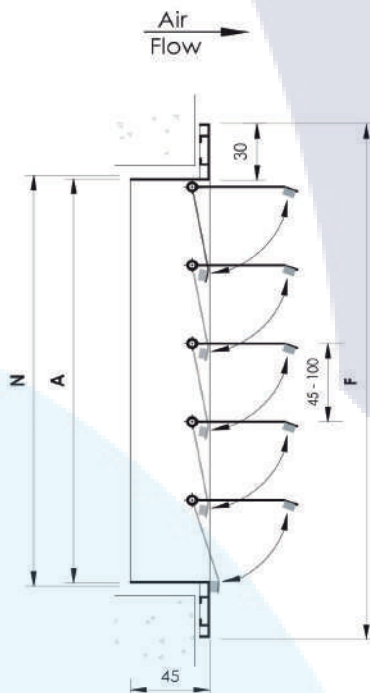
- Automatically, when the duct pressure is normalized, the blades drop to closed position by gravity effect.
- The specially designed blades have an overlapping lip which assures a tight closure while in closing position.
- Available with Foam type Rubber Gasket for air sealing (provided as an option).
- Mounting instructions : see page No GL 04

AC GRILLS

GRAVITY LOUVERS & NON RETURN DAMPERS

Gravity Louvers Construction and Dimensional Details

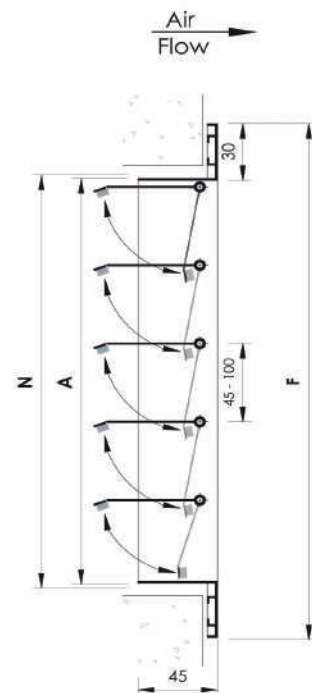
Model GL



- Mounting : usually used for **External** Wall mounting installations.



Model GL - R (Reversed Blades)



- Mounting : usually used for **Internal** Wall mounting installations with reversed blades as shown above.



N : Nominal/Listed Size = Length (L) x Height (H)
A : Actual Size = (L-10) x (H-10)
F : Face Size = (L+50) x (H+50)

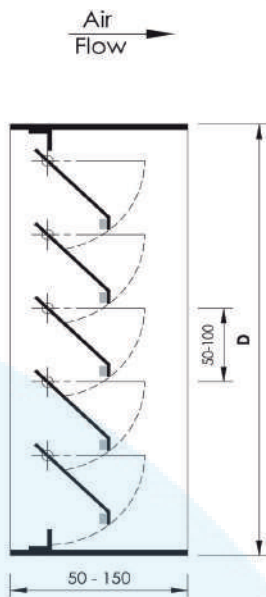
- Blades are sealed at the lower end of each by foam type Rubber Gasket as a standard for air tightness while closure.
- Gravity Louvers furnished approximately 10 mm less than the Nominal/Listed Size.
- All Dimensions are in mm and subject to ± 1 mm tolerance.

AC GRILLS

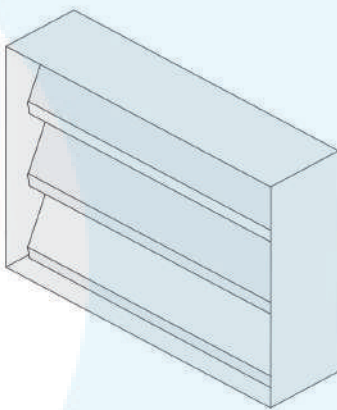
GRAVITY LOUVERS & NON RETURN DAMPERS

Non Return Dampers Construction and Dimensional Details

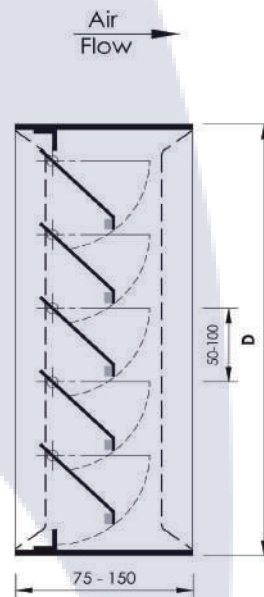
Model NRD-S



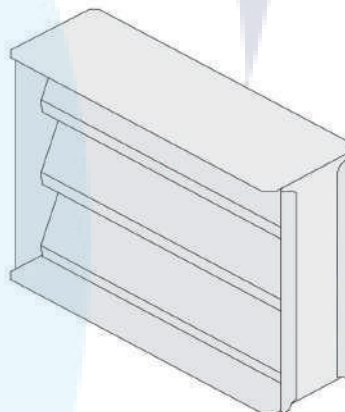
- Mounting : Usually used for duct mounting installations with open ends (**Slip type**).



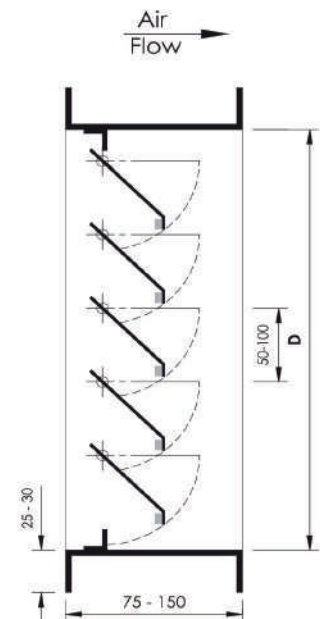
Model NRD-C



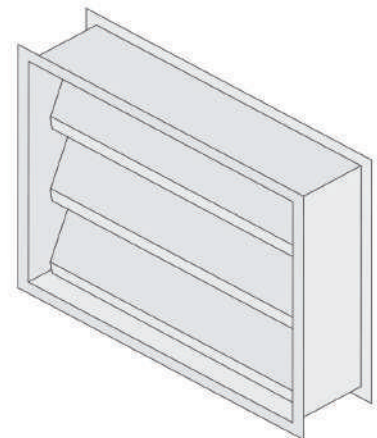
- Mounting : Usually used for duct mounting installations with cleat ends (**Clip type**).



Model NRD-F

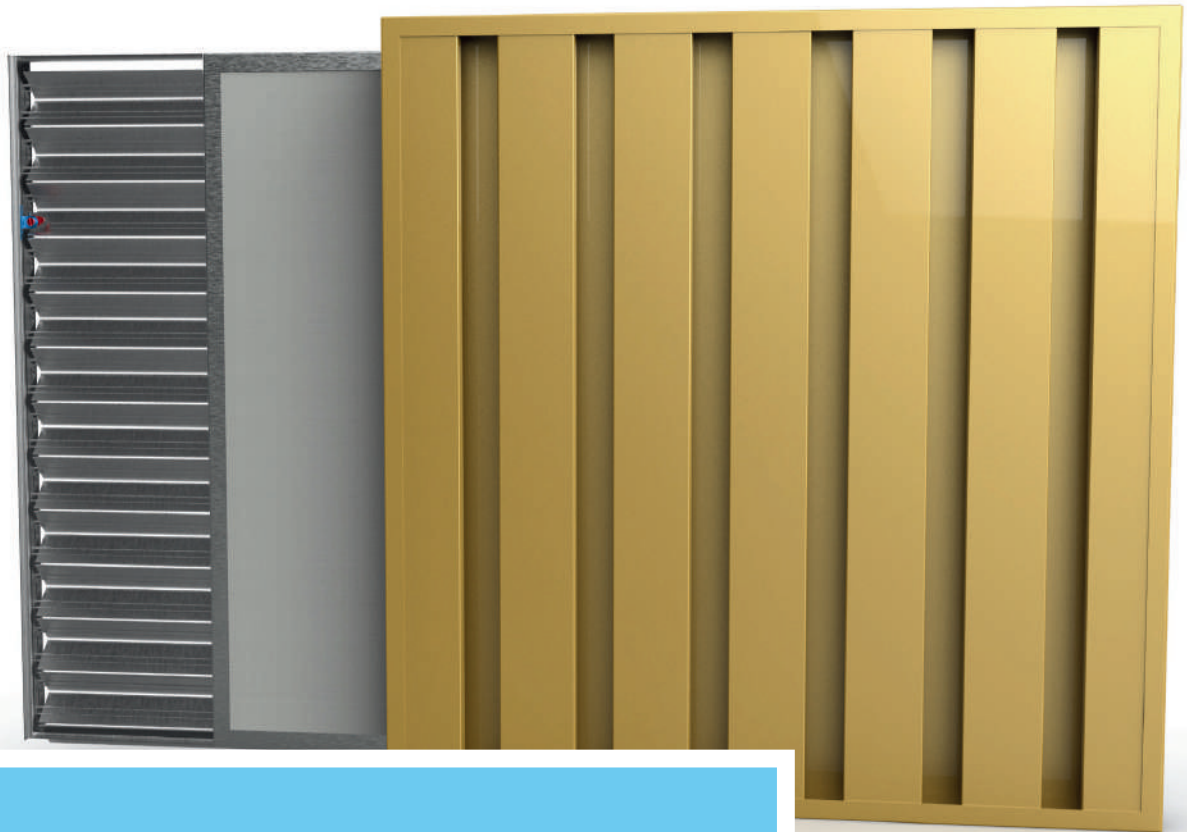


- Mounting : Usually used for duct mounting or recessed installations with flanged ends (**Flange type**).



: Duct Exact Size.

- Blades are sealed at the lower end of each by foam type Rubber Gasket as a standard for air tightness while closure.
- All Dimensions are in mm and subject to ± 1 mm tolerance.



SAND TRAP LOUVERS

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AC GRILLS

SAND TRAP LOUVERS

The Sand Trap Louvers **STL** are designed for usage in serving as a Pre – Filter element in dusty and sandy zone conditions as well as to protect the entry to the external inlets of air conditioning or filtration ducting systems and walls. Blades are formed in U – Profiles placed alternately in vertical configuration. This particular configuration allows a sand and heavy dust separation at high performance rates. The drain holes placed in the lower part let the Louver be self emptying, self cleaning and maintenance free.

Features & Characteristics :

- Construction : Frame & blades are made of high quality Extruded Aluminium Profiles of 6063 Alloy.
- Frame and Blades general wall thickness : 1.5 – 1.8 mm and 1.2 – 1.5 mm respectively.
- Frame Flange width : 20 mm.
- Blades width : 100 mm.
- The vertically U – Inverted blades are assembled in a double bank opposite style configuration which enables the unit to fulfill the requirements for not only a sand or dust filtration but also being a standard weather resisting assembly.
- Flush Mounted Sand Trap Louver type (Model FSTL) is also available. It's convenient to fix on the same plane of the wall with a sand chute tray fixed and inclined at the lower part of the Louver (suitable for all external wall installations).
- Since the STL is only a Pre-Filter unit, it's not recommended to be used alone in a system.
- The adjacent blades are positioned on 40 mm minimum spacing up to 60 mm maximum spacing providing maximum separation of sand or dust from inlet air at low air velocities, thus avoiding excessive dust loading of conventional filters.
- The lower part of the Louver frame contains of 20 mm drain holes arranged in two parallel row for emptying the captured sand or dust.
- Available in wide variety of neck sizes with 150 x 150 mm minimum single section size and 2 mtr maximum single section height. Louvers height exceeding 2 mtr to be fabricated and supplied in multiple sections depending on length and height dimensions as well as site conditions.
- The assembly of multiple sections is unlimited where each section operates independently.
- Multiple sections : Supplied as separate sections and assembly by others on site.
- As a standard, the STL's are always provided with Bird Screen (Bird Guard) of galvanized steel with 12 x 12 mm grids attached behind the frame to prevent large flying objects and animals to pass through the system. Also available with Insect Screen as an option (on request).
- Sand Trap Louvers are available with different type of attachments such as :
 - Aluminium Filter (Model STL + F).
 - Opposed Blade Damper (Model STL + D).
 - Both the Filter and Damper (Model STL + F + D).
- Mounting instructions : see page No. SL-05.
- Surface Finishes : see page No. SL-09.

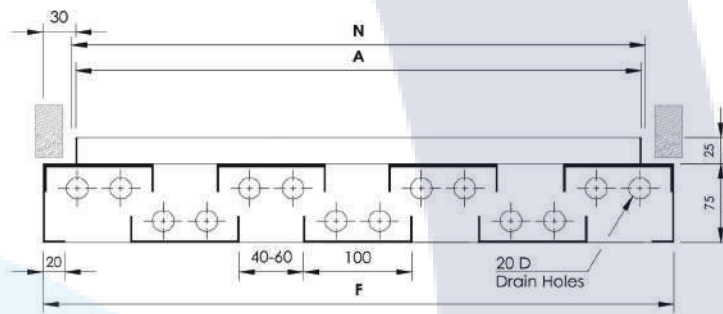


AC GRILLS

SAND TRAP LOUVERS

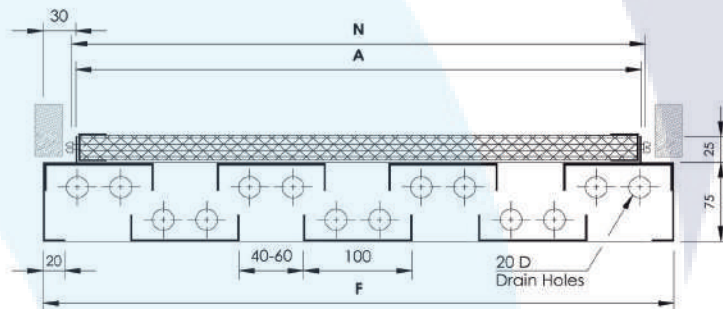
Sand Trap Louvers Construction and Dimensional Details

Model STL



- Bird Screen (standard).

Model STL + F



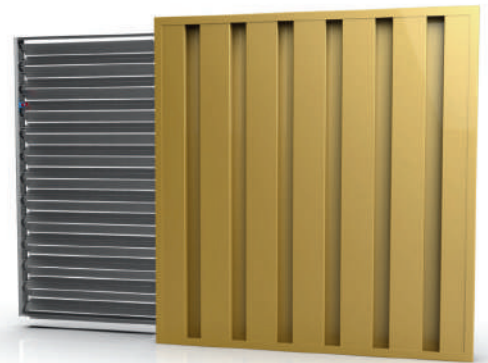
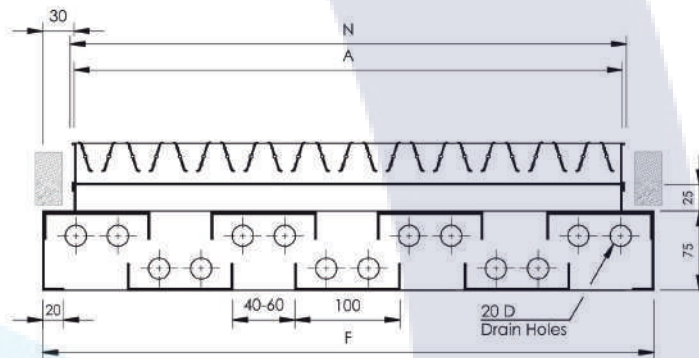
- Bird Screen (standard).
 - Filter : Aluminium Washable Filter Media of 1/2" standard thickness (1 and 2" thicknesses also available on request as an option).
- N** : Nominal/Listed Size = Length (L) x Height (H)
A : Actual Size = (L-5) x (H-5)
F : Face Size = (L+55) x (H+55)
- Sand Trap Louvers furnished approximately 5 mm less than the Nominal/Listed Size.
 - All Dimensions are in mm and subject to ± 1 mm tolerance.

AC GRILLS

SAND TRAP LOUVERS

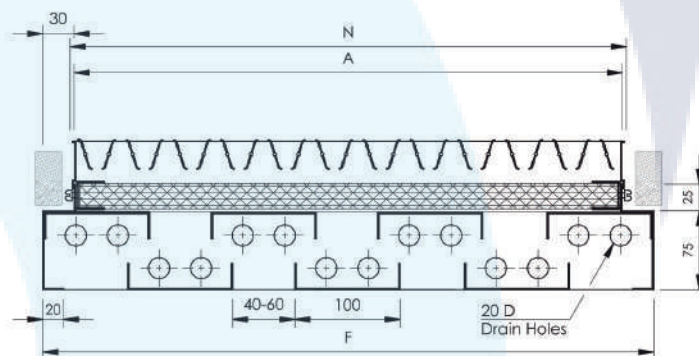
Sand Trap Louvers Construction and Dimensional Details

Model STL + D



- Bird Screen (standard).
- For Opposed Blade Damper details and construction refer to chapter (1) or (2).
- For large sizes of STL it's not recommended to use this type of local Opposed Blade Damper due to its weakness, thus for more rigidity the Opposed Blade Damper has to be replaced by Volume Control Damper (VCD).

Model STL + F + D



- Bird Screen (standard).
- Filter : Aluminium Washable Filter Media of 1/2" standard thickness (1 and 2" thicknesses also available on request as an option).
- For Opposed Blade Damper details and construction refer to chapter (1) or (2).

N : Nominal/Listed Size = Length (L) x Height (H)

A : Actual Size = (L-5) x (H-5)

F : Face Size = (L+55) x (H+55)

- Sand Trap Louvers furnished approximately 5 mm less than the Nominal/Listed Size.
- All Dimensions are in mm and subject to ± 1 mm tolerance.



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DISC VALVES

Disc / Air Valves are a pleasing terminal device which contains good appearance with a very accurate control over supply or exhaust air volumes.

The Disc Valves have been designed to provide a compact, clean and attractive means to ventilate (supply or exhaust) bathrooms, toilets, wash rooms, kitchens and other small rooms.

Features & Characteristics :

- Construction : outer ring and inner disc are manufactured from steel sheet and finished in durable white powder coating color to RAL – 9010 as standard.
- Fixing Collar or Mounting Ring is manufactured from galvanized steel sheet and supplied as a standard with no extra cost.
- Sponge Gasket : provided around the back side of the outer ring as a standard with no extra cost.
- They can provide relatively high air volumes whilst retaining good diffusion and low noise and pressure drop characteristics.
- The inner disc (core) is fully adjustable, its connected to the outer frame by threaded rod for accurate and easy adjustment.
- Fixing is obtained by twisting the valve body into the fixing collar until attaining a perfect seal utilizing the gasket provided.
- Valve adjustment is achieved by simply rotating the inner disc (core) inwards or outwards on its spindle and locking into its set position using the holding nut at the rear of the valve assembly.
- Mounting Instructions : see page No. DV-03.
- Surface Finishes : see page No. DV-07.



TABLE DV - 01

OPERATING RANGE & QUICK SELECTION TABLE											
SUPPLY						EXHAUST					
Available Sizes		Noise Level				Available Sizes		Noise Level			
mm	Inch	Min.	<25	>25	35	mm	Inch	Min.	<25	>25	35
100 Ø	4" Ø	5	26	28	40	100 Ø	4" Ø	5	60	62	85
150 Ø	6" Ø	30	100	105	140	150 Ø	6" Ø	20	140	145	220
200 Ø	8" Ø	10	90	100	118	200 Ø	8" Ø	20	245	250	350

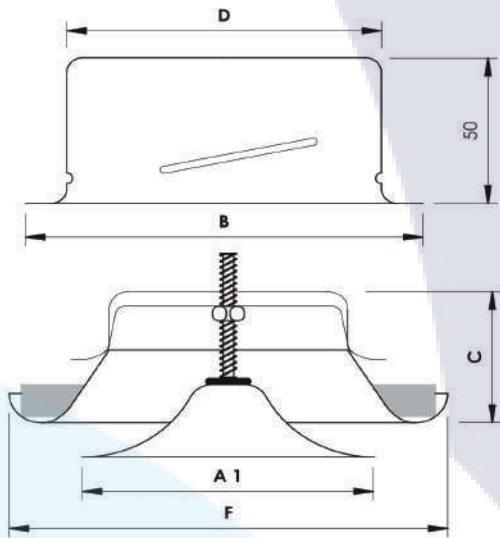
- Figures are in (m³ / h).
- Selection based on (0) level position (see pages No. DV-04, 05 & 06).

AC GRILLS

DISC VALVES

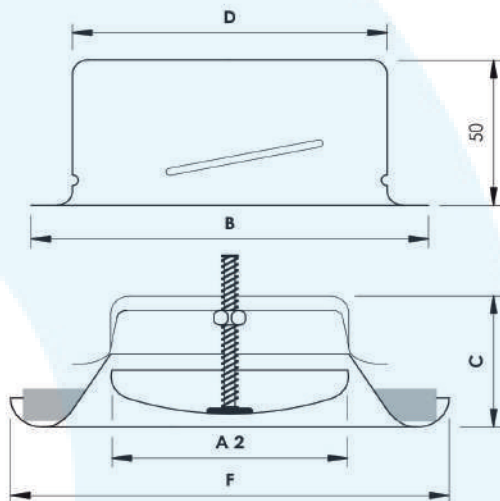
Models Construction and Dimensional Details

Supply Disc Valve, Model SUPPLY D.V. METAL



- Supply Disc Valve complete with its fixing collar.

Exhaust Disc Valve, Model EXH. D.V. METAL



- Exhaust Disc Valve complete with its fixing collar.

TABLE DV - 02

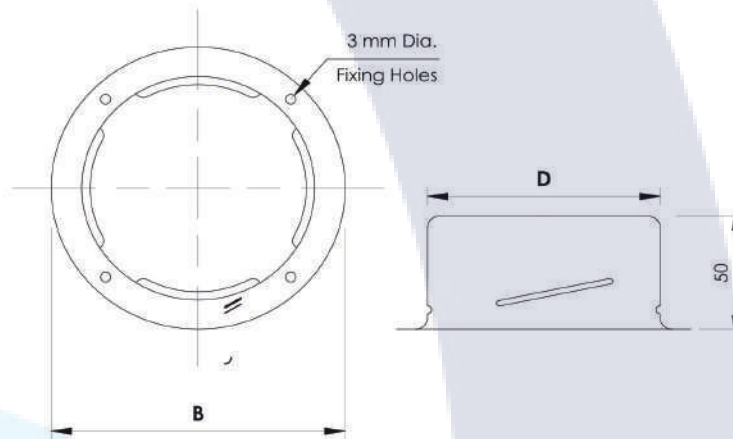
NECK & OTHER DIMENSIONS FOR SUPPLY & EXHAUST DISC VALVES

Nominal / Listed Sizes		Dimensions in mm					
mm	Inch	D Ø	F Ø	A 1 Ø	A 2 Ø	B Ø	C
100 Ø	4" Ø	99	138	92	75	125	40
150 Ø	6" Ø	149	202	135	119	175	50
200 Ø	8" Ø	199	248	194	157	225	63

- All Dimensions are in mm and subject to ± 2 mm tolerance

AC GRILLS DISC VALVES

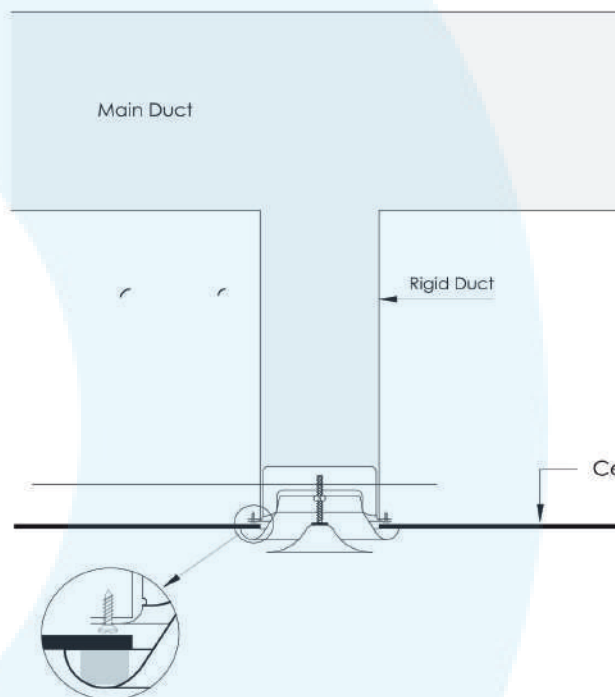
Fixing Collar / Mounting Ring Details



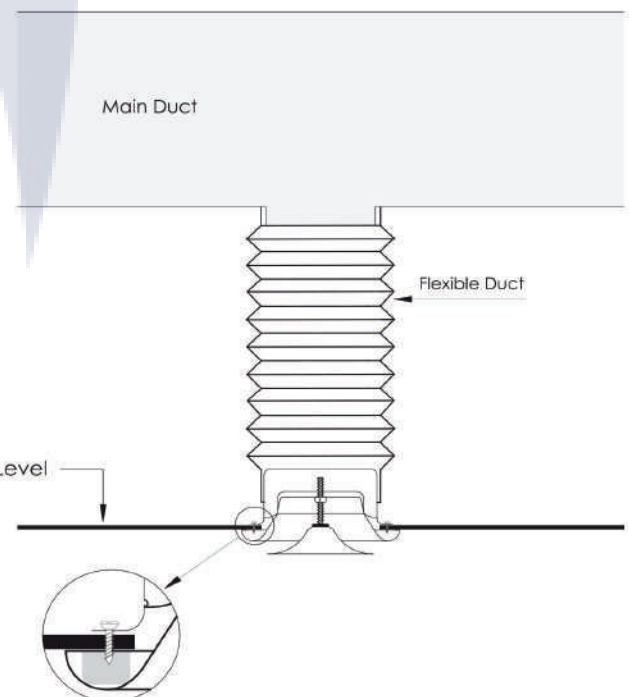
- Refer to previous page for sizes and dimensions details.

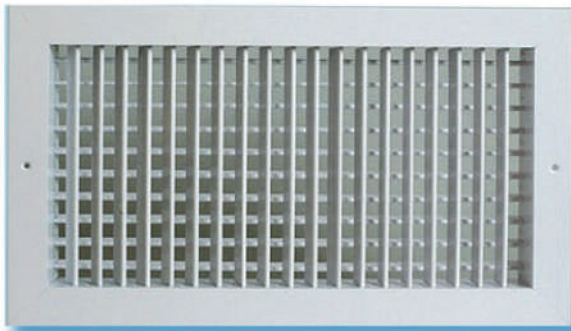
Mounting Instructions

Connection To Round Rigid Duct



Connection To Round Flexible Duct





OTHER AIR OUTLET



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Circular Ceiling Diffuser (Fixed Core)

Model CSCD C/W BFD (FIXED CORE)

This model of circular Diffuser is totally different in its design, construction & concept from our one mentioned in chapter # 10. In this model core (Inner cones) is :

- Fixed.
- Flushed to the frame.
- Can't be adjusted vertically up or down.
- But still removable from the face.

Each diffuser already equipped with ABS (plastic) butterfly damper in black color as standard.

Features & Characteristics :

- Frame & inner cones (core) are made of high quality Aluminum sheet pressed to give the circular shape.
- Damper (Butterfly type): made of ABS (plastic) in black color.
- The inner cones (core) are designed in conical shape, modern styling & easy removable allowing for easy installation, balancing, cleaning, damper adjustment & access to duct system.
- Available in 5 standard sizes ranging from 150 mm to 350 mm Ø in 50 mm increments.
- Provided with standard sealing sponge gasket fixed backside of each diffuser.
- Provided with G.I. assembly bridge & screws for easy installation.
- Good for installations between 2.6 to 4.1 mtr height.

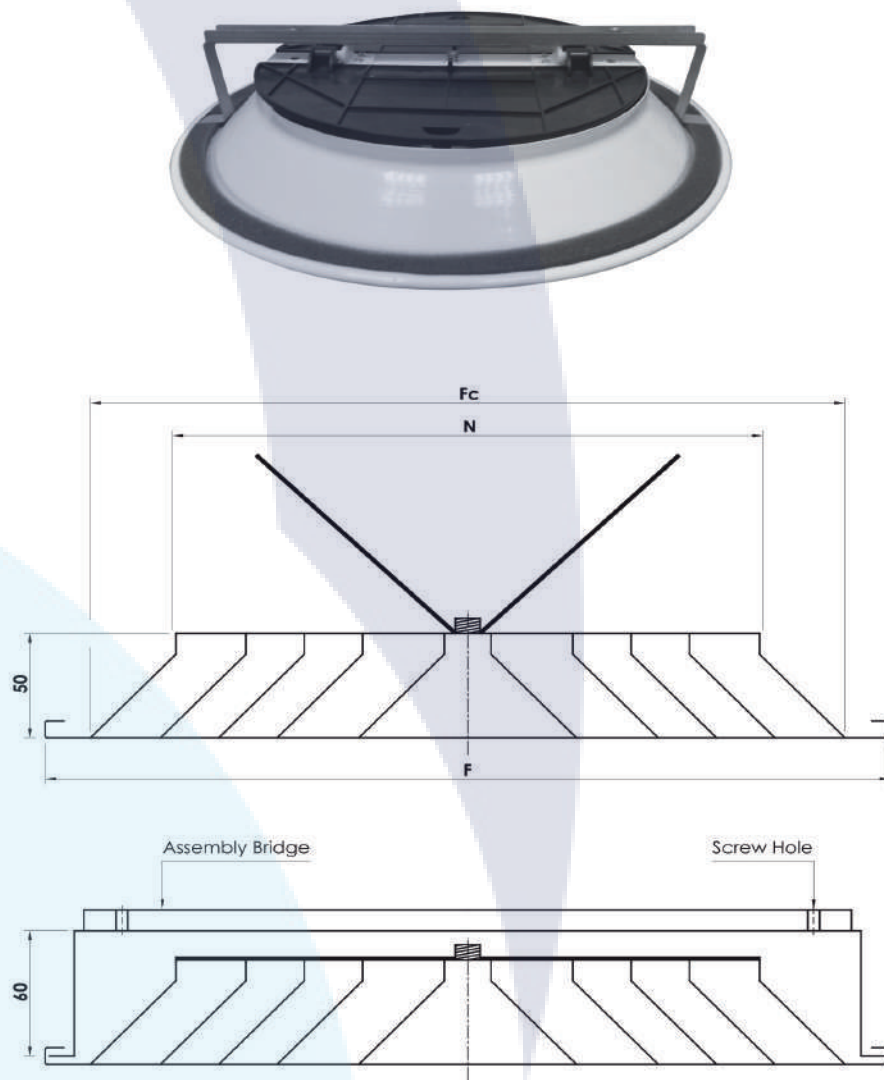


OPERATING RANGE & QUICK SELECTION TABLE

Nominal Neck size (N)		CFM Range
mm	Inch	
150 Ø	6" Ø	60 to 200
200 Ø	8 " Ø	120 to 320
250 Ø	10" Ø	180 to 470
300 Ø	12" Ø	240 to 630
350 Ø	14" Ø	300 to 820

- @ Max 40 dBA.

Circular Ceiling Diffuser (Fixed Core)



NECK & OTHER DIMENSIONS				
Nominal Neck size (N)		Dimensions in mm		No. of cones
mm	Inch	F Ø	Fc Ø	
150 Ø	6" Ø	262	214	2
200 Ø	8" Ø	304	256	3
250 Ø	10" Ø	362	314	4
300 Ø	12" Ø	401	353	5
350 Ø	14" Ø	452	404	6

• All Dimensions are in mm and subject to ± 2 mm tolerance.

Jet Nozzle Diffuser (Ball Type)

Model : JET NOZZLE DIFFUSER (BALL TYPE)

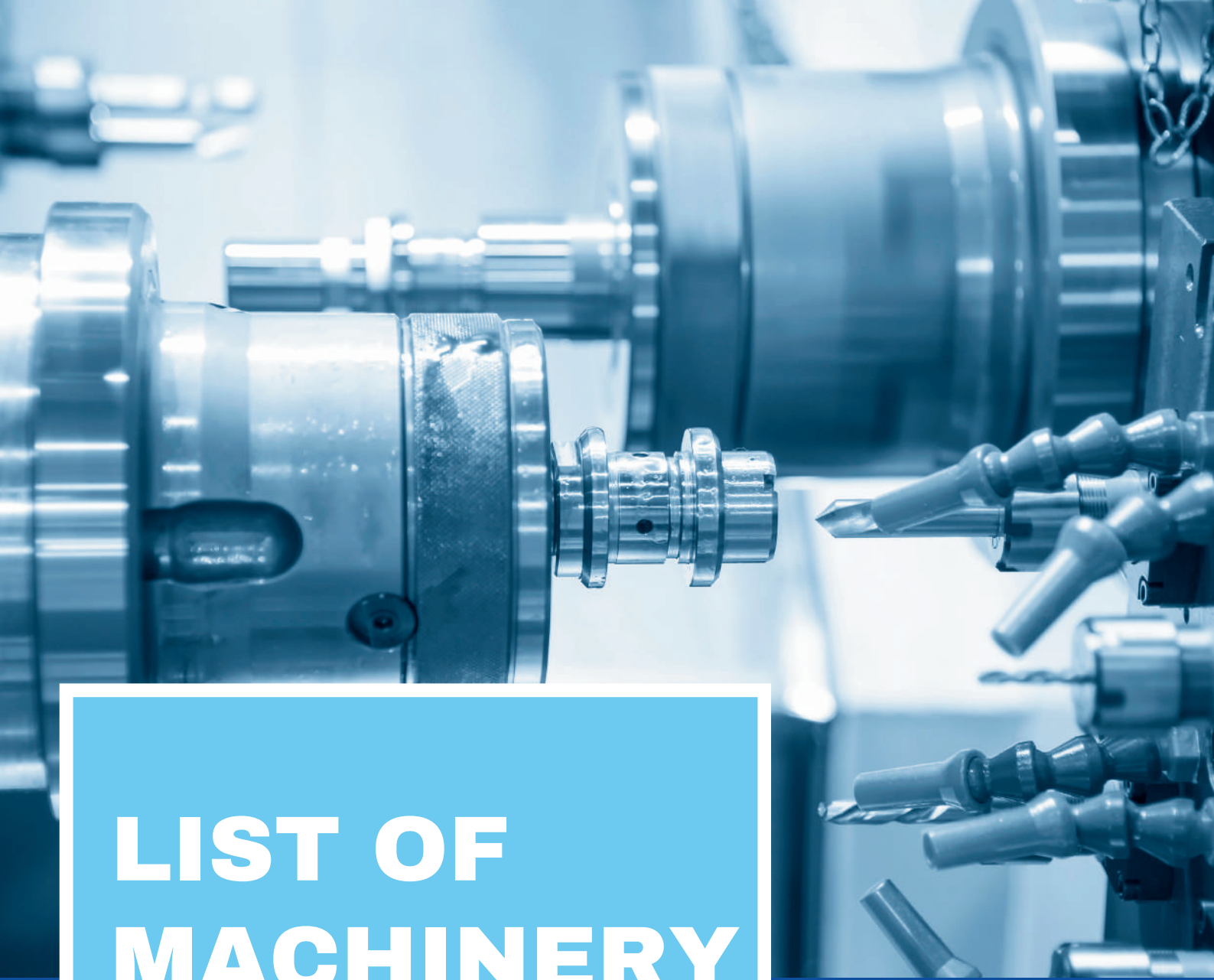
The ball type Jet Nozzles with variable diffusion directions are particularly designed for Air Conditioning systems which require long concentrated throws in order to reach areas which are distant from the duct system or hidden by structural elements.

Jet Nozzles of ball type can be utilized for both vertical & horizontal air diffusion, thanks for their easy orientation in all directions around 360°, also the minimum construction tolerance & an accurate smooth finish of the spherical body together with its surrounding ring guarantees easy & precise movement.

Features & Characteristics :

- Spherical body & its ring are made of high quality Aluminum sheet pressed to give the ball shape.
- The ball can be oriented around 360°.
- Fixing ring is provided with holes for easy screw installation.
- An extra covering ring is provided to conceal the fixing screws (turning this ring clockwise is only what you need to fit it in place).
- The built in circular neck provided at the backside of each diffuser allows for easy connection to flexible duct.
- A double felt seal between the ball body & its ring permits a perfect seal & a self locking position once desired angle has been chosen.
- Available in five standard sizes 150, 200, 250, 315 & 400 Ø mm.
- Good for installations between 2.8 to 30 mtr height.





LIST OF MACHINERY

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LIST OF MACHINERIES AND CAPACITY

No.	Name of Machine	اسم الماكينة	Machine No.	Nature of Work	Product Range	Make	Model	Country of Origin	Quantity	Capacity/Day	Units
1	Autoline V	خط إنتاج أوتوماتيكي للداكت المستطيل	MSC - 0033	Un coiling, making beading, Notching, Folding, shearing, Lockforming, TDC Flanging, Folding and ready for Seam Closing	26G-18G	ACL	AML-V	China	1	6	Tonnes
2	Coil Line - AML 111	خط إنتاج لفائف أوتوماتيكي	MSC - 001	Un coiling, making beading, Notching, Folding, shearing	26G-18G	ACL	AML-3	China	1	5	Tonnes
3	CNC Plasma machine machine ACL	ماكينة قص أوتوماتيكي (بلازما)	MSC - 002	Manufacturing of Duct Fitting Pieces like Elbows, Reducers, Shoe Collars, Branches	upto 3mm Sheet	ACL China	ACL-3100	China	1	1	Tonnes
4	CNC Plasma machine machine Kolke	ماكينة قص أوتوماتيكي (بلازما)	MSC - 003	Manufacturing of Duct Fitting Pieces like Elbows, Reducers, Shoe Collars, Branches	upto 3mm Sheet	Kolke Aronson	DP-516	USA	1	1	Tonnes
5	CNC Plasma machine machine Farley	ماكينة قص أوتوماتيكي (بلازما)	MSC - 004	Manufacturing of Duct Fitting Pieces like Elbows, Reducers, Shoe Collars, Branches	upto 3mm Sheet	Farley Wozard	D14-Farley	UK	1	Enough Capacity to Support coil Line	
6	Lockformer Big	ماكينة إغلاق نسرة	MSC - 005	Making Pittsburgh Female lock, 38mm,	26G-18G	Lock former		UK	2	Enough Capacity to Support coil Line	
7	Lockformer Small	ماكينة إغلاق نسرة	MSC - 006	Making Pittsburgh Femalelock, 25mm, Pittsburgh Male	26G-22G	Oliver Machinery Company		USA	1	Enough Capacity to Support coil Line	
8	Lockformer Larosa Pittsburgh	ماكينة إغلاق نسرة	MSC - 007	Making Pittsburgh Femalelock, 25mm, Pittsburgh Male	26G-22G	ACL	LC-12 DR	China	1	Enough Capacity to Support coil Line	

LIST OF MACHINERIES AND CAPACITY

No.	Name of Machine	اسم الماكينة	Machine No.	Nature of Work	Product Range	Make	Model	Country of Origin	Quantity	Capacity/Day	Units
9	Shearing Machine - Morgan	ماكينة قطع	MSC - 008	Preparation of Offline Pieces, C & S Cleats Strips	Up to 6mm Thick	Morgan Rushworth LTD		UK	1	Enough Capacity to Support the daily production Schedule	
10	Shearing Machine - Beyeler	ماكينة قطع	MSC - 009	Preparation of Offline Pieces, C & S Cleats Strips	Up to 2mm Thick	Beyeler		UK	1	Enough Capacity to Support the daily production Schedule	
11	Folding machine - Keetona	ماكينة التواء ورق (تطويج) أوتوماتيك	MSC - 010	Folding of C & S Drive Cleat Ducts, and General Folding of Sheet Metal works	Up to 1.5mm Thick	Keetona	HUD 818709	UK	1	Enough Capacity to Support Coll Line & Daily Production	
12	Folding machine - Morgan Manual Folder	ماكينة تطويج هيدروليكي	MSC - 011	Folding of C & S Drive Cleat Ducts, and General Folding of Sheet Metal works	Up to 1.5mm Thick	Morgan Rushworth LTD		UK	1	Enough Capacity to Support Coll Line & Daily Production	
13	Power Folding Machine - Forst	ماكينة تطويج أوتوماتيك	MSC - 012	Folding of C & S Drive Cleat Ducts, and General Folding of Sheet Metal works	Up to 1.5mm Thick	Frost		UK	1	Enough Capacity to Support Coll Line & Daily Production	
14	Press Brake Machine - Adira	ماكينة أوتوماتيكية تطويج بزوايا محددة	MSC - 013	For manufacturing VCD Blades, and General bending of Sheet Metal works	Up to 2.00 mm Thick, 3 meter Long	Adira		UK	1	10 Strokes Per Minute	
15	Press Brake Machine - Barnes	ماكينة أوتوماتيكية تطويج بزوايا محددة	MSC - 014	For manufacturing VCD Blades, and General bending of Sheet Metal works	Up to 2.00 mm Thick, 1.2 meter Long	Barnes		UK	1	10 Strokes Per Minute	
16	RAS Seam Locking Machine	ماكينة إغلاق وجمع حواف الصاج	MSC - 015	For Making Double Groove Longitudinal Seam, and to Complete the Rectangular Duct Seam Closing	Up to 0.80mm Thick, and a Duct Size Up to 1000mm	Ras		UK	2	Closes 25 Longitudinal Seam Per Hour/700 Sqmt of Rectangular Ducting Per Day, with each Machine	

LIST OF MACHINERY

No.	Name of Machine	اسم الماكينة	Machine No.	Nature of Work	Product Range	Make	Model	Country of Origin	Quantity	Capacity/Day	Units
17	RAS Seam Locking Machine	ماكينة إغلاق وجمع حواف الصاج	MSC - 016	For Making Double Groove Longitudinal Seam, and to Complete the Rectangular Duct Seam Closing	0.6-1.0	Germany		Germany	2	One Duct Per Minute	
18	Standing S Cleat Machine	ماكينة عمل سحجات الجمع الخاص بالفتك بسبي و اس بشكل راسي و علوي	MSC - 017	Preparing Standing S Cleat	0.6-0.8	China		China	1	10 Meters / Minute	
19	Beading Machine	ماكينة تطعيم (كروم)	MSC - 018	Making of Beading for the Plasma Made Pieces	0.5-1.5	China		China	1	Supports the daily production schedules	
20	TDC Folding Machine	ماكينة تطعيم هيدروليك خاصة بعمل الفتك	MSC - 019	Folding of TDC Flange Ducts	0.5-1.2	China	WSY-1.5 X2050A	China	1	One Duct Per Minute	
21	TDC Folding Machine	ماكينة تطعيم هيدروليك خاصة بعمل الفتك	MSC - 034	Folding of TDC Flange Ducts	0.5-1.2	China	WSY-1.5 X2050A	China	1	One Duct Per Minute	
22	TDC Flange Machine	ماكينة عمل زوايا الجمع الخاصة بالفتك	MSC - 020	Making of TDC Flange Profiles and TDC Cleats	0.5-1.2	China	T-12	China	1	One Duct Per Minute	
23	TDC Flange Machine	ماكينة عمل زوايا الجمع الخاصة بالفتك	MSC - 035	Making of TDC Flange Profiles and TDC Cleats	0.5-1.2	China	T-12	China	1	One Duct Per Minute	
24	Cornematic Machine	ماكينة تثبيت زوايا الفتك بالصاج	MSC - 021	Insertion of TDC Corners, Into TDC Flange Ducts	0.5-1.2	China	CCI-S	China	1	30 Ducts Per Hour	

LIST OF MACHINERIES AND CAPACITY

No.	Name of Machine	اسم الماكينة	Machine No.	Nature of Work	Product Range	Make	Model	Country of Origin	Quantity	Capacity/Day	Units
25	Lockformer Big	ماكينة إغلاق مسرة	MSC - 036	Making Pittsbrush Female Lock, 38 mm.	1.5mm, 16G Thickness	ACL	LC-12M	China	1	Enough Capacity to Support Coil Line	
26	Fire Damper Frame	ماكينة صنع الإطار المنيق في الدكر (إطار الدنبر)	MSC - 037	For Making curtain Type Fire Damper Frame	20G	Falconmac	FD-IF-120	China	1	15 Frames permin.	
27	Fire Damper Blade	ماكينة صنع شرايح للنار المنيقة في الدكر (شرايح الدنبر)	MSC - 038	For Making curtain Type Fire Damper Frame	20G	Falconmac		China	1	10 Meters / Min	
28	Engel Seam Locking Machine	ماكينة إغلاق الدكر جمع الحواف مع بعضها بشكل طولي	MSC - 022	For Closing Longitudinal Pittsbrush Seams in the Rectangular Straight Ducts	Up to 1.20mm Thick, and a Duct Size Up to 1500 mm	Engel	M-5-16-Ps	America	1	Closes 25 Longitudinal Seam Per Hour. 800 sqmt of Rectangular Ducting per day, with each Machine	
29	Power Rolling Machine	ماكينة لف الصاج بشكل دائري	MSC - 023	For Rolling the Inner pieces of Elbows, For rectangular ducts	Up to 1 meter width, and 1.2 meter Thick			UK	1	Support Daily Production	
30	Duct Mate Chapsow	ماكينة قص زوايا	MSC - 024	For Preparing Ductmate Flanges	0.55-1.0mm			UK	1	Supports the Daily Production Schedules	Tonnes
31	Power Swager	ماكينة عمل كروكيات للصاج الدائر	MSC - 025	For making swage grooves in VCDs, Collars	0.55-1.0	Frost, Waltons		UK	3	Supports the daily Production Schedules	
32	Spot Worker	ماكينة لحام	MSC - 026	For Making Round VCDs/transition Pieces	3 + 3 mm	British Federal LTD		UK	2	Supports the daily Production Schedules	

LIST OF MACHINERY

No.	Name of Machine	اسم الماكينة	Machine No.	Nature of Work	Product Range	Make	Model	Country of Origin	Quantity	Capacity/Day	Units
33	Iron Welder	ماكينة فتح أخرام اللحام وقص للمقاطع الكبيرة	MSC - 028	For Cutting Channels and angles	up to 10 10 mm	Kingsland		UK	2		
34	C & S cleat Machine	ماكينة عمل قضبان سحب بشكل سي و إس	MSC - 029	For manufacturing C & S Drive cleats	0.5 - 0.8	ACL	LC-12m	China	1		Tonnes
35	Powerr Flanger	ماكينة كروقات للصلب الدائري	MSC - 030	For making 10mm Male on Radius Elbow	0.5 - 12	ACL	R-15	China	1		
36	Ductmate Flange machine	ماكينة أوتوماتيكية تعمل زوايا محددة	MSC - 031	Making Ductmae flange profiles	0.			UK			
37	Clinching Machine	ماكينة جمع الصاج عن طريق الضغط والخي		For Clinching Ductmate Flanges	Range from 0.5 mm to 1,20mm	Triumph	F-301	Swithe -rland	2		
38	Spiro Tube Former	خط إنتاج صاج دائري طولي		For Making Spiral Duct Straight,	Range Dia 125mm to 1500mm, from 26G to 18G	Spiro	2002	Swithe -rland	1	5	Tonnes
39	Spiro Sttch Welder	ماكينة لحام طولية خاصة باللحام الدائري		For Sttch welding the longitudinal seams	Range Dia 125mm to 1500mm, from 26G to 20G	Spiro	STW - 161	Swithe -rland	1		
40	Automatic Roller	ماكينة سحب صاج وتحويله لـ رولات		For Rolling Spiral Elbow Segments	100 - 500mm Dia	Spiro	Roll Former Ar 65	Swithe -rland	1		

LIST OF MACHINERIES AND CAPACITY

No.	Name of Machine	اسم الماكينة	Machine No.	Nature of Work	Product Range	Make	Model	Country of Origin	Quantity	Capacity/Day	Units
41	Gorelocker	ماكينة عمل حواف للصاج الدائري		For Making Seams & Closing Seams in Spiral Elbows Segment	ø 200- ø 1500	Spiro		Switzerland	2		
42	Circular Saw	منشار قطع دائري		For Loading Roads and Angles		Bianwn		UK	1		
43	Bandsaw	منشار قطع طولي		For Loading Roads and Angles		Bianco	MOO 420	UK	1		
44	Forklift	حاملة شوكية 6	MSC - 033	For Loading Collis in Coil Line	6 ton Capacity				1		
45	Forklift	حاملة شوكية 3	MSC - 034	For Loading Collis in Coil Line	3 ton Capacity				1		
46	Air Compresor	ضاغط هواء كمبروسر	MSC - 032			Denair	DF-15 A	China	2		
								Total		12	Tonnes

OUR CERTIFICATES

duct.sammangroup.com



+966 592995120
+966 597510438



sales.duct@sammangroup.com





Approved Installer Certificate

This is to certify that

M.U. Al Samman Est.

PO Box 132934
Jeddah
Saudi Arabia

Is an Is an Approved Fabricator and Installer of Firemac Gulf DMCC fire resistant ductwork systems, having met the requirements of certification for:

FIREMAC FM FIRE DUCTS
ONE TO FOUR HOUR FIRE RESISTANCE

Having completed training with a Firemac Gulf approved trainer on 27/03/16

Signed



Name:	David Roulstone
Position:	Operations Director
Company:	Firemac Gulf DMCC
Reference:	MUAS Firemac Approval
Issue Date:	28/03/16
Expiry Date:	27/03/18



Firemac Gulf DMCC, PO Box 336262, 3802-1, 38th Floor, Tower AA1, Mazaya Business Avenue, JLT, Dubai, United Arab Emirates
Tel: +971 (0) 4278 4703
Trading License Number: DMCC-070136
Registration Number: JLT4388



77042

رقم الترخيص
تاريخ الإصدار
1443/11/30 هـ
2022/06/30 م



الهيئة العامة للاستثمار
SAGIA

ترخيص استثمار صناعي
Industrial Investment License

المركز الرئيسي

حالة الترخيص: **جديد**
 اسم الترخيص: **مضلع محمد اسامه يحيى الصمان للمنتجات الحديدية (612964)**
 الكيان القانوني: **فروع مؤسسة فردية**

الرمز	الرمز البريدي	عدد العمال	إجمالي التوظيف	رأبنا سعودي
32934	21382	(100 فرد)		+966126744479

الصفة

رقم المستثمر الجنسية

اسم صاحب/ أصحاب الترخيص

الحصة

رقم المستثمر الجنسية

اسم صاحب/ أصحاب الترخيص

الصفة	رقم المستثمر الجنسية	اسم صاحب/ أصحاب الترخيص	الحصة	رقم المستثمر الجنسية	اسم صاحب/ أصحاب الترخيص
مؤسسة محمد اسامه الصمان للمعادن	602839	100%	مستثمر	سورية	مؤسسة محمد اسامه يحيى الصمان ومقره في سوريا

البيد الجغرافي

الكمية

البيد الجغرافي

الكمية

البيد الجغرافي

الكمية

البيد الجغرافي	الكمية	البيد الجغرافي	الكمية	البيد الجغرافي	الكمية
7308	17000	7308	17000	7308	17000
من منشآت وأجزاء من منشآت حديدية أو حديد	من منشآت وأجزاء من منشآت حديدية أو حديد	من منشآت وأجزاء من منشآت حديدية أو حديد	من منشآت وأجزاء من منشآت حديدية أو حديد	من منشآت وأجزاء من منشآت حديدية أو حديد	من منشآت وأجزاء من منشآت حديدية أو حديد
44209020	5000	44209020	5000	44209020	5000
أصناف الفولاذ من الحديد	أصناف الفولاذ من الحديد	أصناف الفولاذ من الحديد	أصناف الفولاذ من الحديد	أصناف الفولاذ من الحديد	أصناف الفولاذ من الحديد
التي لا تقلد أ	التي لا تقلد أ	التي لا تقلد أ	التي لا تقلد أ	التي لا تقلد أ	التي لا تقلد أ

تاريخ الطابعة 1438/11/02 هـ محافظة الهيئة العامة للاستثمار ابراهيم العمر بالتفدية منه

1 - 1

الهيئة العامة للاستثمار
SAGIA
الإدارة العامة للتراخيص

البريد بن صالح المويدي
1438/10/28 تاريخ التوقيع

78992

الرقم: ٤٣٠٢٩٥٥٦١		رؤية VISION 2030 المملكة العربية السعودية KINGDOM OF SAUDI ARABIA
التاريخ: ١٤٣١/٠٩/٠٤	وزارة التجارة والاستثمار Ministry of Commerce and Investment	
شهادة تسجيل فرع مؤسسة		
اسم التاجر: محمد اسامه يحي السمان		
رقم سجل المدني / بطاقة الأحوال: ٠٠٧٣٣٤٨١٢٤٦	تاريخه: ١٤٢٨/٠١/٠٤	مصدره: جده
المركز الرئيسي: جدة ١ حي الواحة - شارع محمد سلمان - خلف قاعة بلاتو		
ص ب: ١٣٢٩٣	الرمز البريدي: ٢٧٠٦٨٥٣	فاكس: ٢٧٠٦٨٥٣
رقم سجل المركز الرئيسي: ١٦٦٤٩١		
الاسم التجاري للفرع: مصنع محمد اسامة يحي السمان للمنتجات الجديدية فرع مؤسسة محمد اسامة السمان		
العنوان: جدة حي الخمرة-متنوعات الغرفة التجارية- المرحلة الاولى متنودج ٧ب		
ص ب: ١٢٢٩٢	الرمز البريدي: ٢٧٠٦٨٥٣	فاكس: ٢٧٠٤٤٤٧٩
النشاط: انتاج منشآت واجزاء من منشآت من حديد او صلب وفتحات التهوية غير الالهية واصناف التانيث من الخشب التي لا تؤلف لشغل الخشب وابواب ونوافذ واظرها وعتبات الابواب وابواب كراجات تعمل بالكهرباء وانتاج لوحات توزيع كهربائية ولوحات تحكم بموجب ترخيص الهيئة العامة للاستثمار رقم (١١١)٣٠١١٥٢٥٢ يتأريخ ١٤٣٠/١١/٢٩		
رأس المال: ١٠٠٠٠٠٠ فقط مليون ريال غير		
اسم المدير أو الوكيل المفوض: محمد اسامه يحي السمان		
رقم السجل المدني - الإقامة: ٠٠٢٢٣٤٨١٢٤٦	الجسيه: سوري	تاريخ الميلاد: ١٩٨٣
سلطات المدير: كافة الصلاحيات لإدارة الفرع		
يشهد مكتب السجل التجاري بصدقة: جدة بأنه تم تسجيل هذه المؤسسة بسجل مدينة جسيه		
وتنتهي صلاحية الشهادة في: ١٤٤٢/١١/٢٧ بموجب الإيصال رقم ٢٨١١٧٦١٨..... وتاريخ ١٤٣٨/٠٤/٢٨		
التوقيع: مدير السجل التجاري: عبد الرحمن عبيدة الحريمي		
الختم: 		

١٤٣٩ - ١١ - ١١

[illegible][illegible]



شهادة اشتراك

قطاع خدمات المنتسبين
إدارة خدمات العملاء

رقم الاشتراك: ١٦١٤٠٣
تاريخ الإصدار: ١٤٣٨/٠٧/١٢ هـ
الدرجة: الرابعة
تاريخ الانتهاء: ١٤٤٢/١١/٢٧ هـ

تشهد غرفة جدة بأن
مصنع محمد اسامه يحي السمان للمنتجات الحديدية (فرع مؤسسة)
محمد اسامه يحي السمان

رقم السجل التجاري / الترخيص: ٤٠٣٠١٩٥٥١١ تاريخه: ١٤٣١/٠١/٠٤ هـ إلى عام ١٤٤٢ هـ

مدير قطاع خدمات المنتسبين
محمد بن أحمد العطاس
أي كتمط أو تعديل بهذه الشهادة تعتبر لا كيه
(يشطب الإنتساب في حالة شطب السجل التجاري المذكور في هذه الشهادة)

بيت أصحاب الأعمال



ترخيص صناعي استثمار

رقم (٢١١٢) بتاريخ: ١٤٣٨/٠٧/٠١ هـ
ترخيص جديد لرخصة الإستثمار رقم (١١١٠٣٠١١٥٣٥٢)

اسم المنشأة	مصنع محمد اسامه يحي السمان للمنتجات الحديدية	رمز المنشأة	٣٨٢٢٧	السجل التجاري للمنشأة	٤٠٣٠١٩٥٥١١
موقع المنشأة	جدة (N21.3164119 - E39.2250492)	هاتف	٢٨٧٦٥٠٨	فاكس	٦١٧٠٠٧٦
ملكية المنشأة	محمد اسامه يحي السمان (رقم الهوية: ٢٢٣٣٤٨١٣٤٦ / الجنسية: سوريا)	صندوق البريد	١٣٢٩٣٤	الرمز البريدي	٢١٣٨٢
المدينة	جدة	النشاط الصناعي	صنع المنتجات المعدنية الانشائية (رمز النشاط: ٢٥١١)		

الطاقة الإنتاجية	الوحدة	رمز المنتج	وصف المنتج	الطاقة الإنتاجية	الوحدة	رمز المنتج	وصف المنتج
١٧٠٠٠	متر مربع	٧٣٠٨٩٠٩٠	أجزاء ومنشآت منتجات من الصلب	١٥٠٠٠	متر مربع	٧٣٢٦٩٠٣٠	قنصات التهوية غير الآلية من حديد أو صلب

وزير الطاقة والصناعة والثروة المعدنية
خالد بن عبدالعزيز الفالح

عدد العمالة: ٤٠ (اربعون) فردا
إجمالي التمويل: ١ (واحد) مليون ريال

تنتهي صلاحية الترخيص بتاريخ: ١٤٤١/٠٦/٣٠ هـ

ملاحظة هامة: الترخيص خلف الترخيص ممتدة له



الهيئة العامة للزكاة والدخل
GENERAL AUTHORITY OF ZAKAT & TAX
(146)

شهادة
CERTIFICATE
فرع جدة

رقم الشهادة : ١٢٠١٠٩٩٩
التاريخ : ١٤٣٨/٠٧/٢٨ هـ
الرقم للميز : ٣٠١٢٠٧٣٧

هذه الوثيقة مستخرجة من النظام الآلي ولا تحتاج إلى توقيع
لايحتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة www.dzit.gov.sa

الختم الرسمي

الهيئة العامة للزكاة والدخل
GENERAL AUTHORITY OF ZAKAT & TAX
الشهادات

تشهد الهيئة العامة للزكاة والدخل بأن المكلف / مؤسسة محمد اسامة السمان للمقاولات
اقامة رقم ٢٣٣٤٨١٣٤٦ وسجل تجاري رقم ٤٠٣٠١٦٦٤٩١ رخصة رقم ١١٢٠٢٩٠٧٩٤٧
قدم إقراره عن الفترة المنتهية في ٢٠١٦/١٢/٣١ م
وقد منح هذه الشهادة لتمكينه من إنهاء جميع معاملاته بما في ذلك صرف مستحقاته النهائية عن العقود
يسري مفعول هذه الشهادة حتى تاريخ ١٤٣٩/٠٨/١٤ هـ الموافق ٢٠١٨/٠٤/٣٠ م
(الرابع عشر من شعبان ألف وأربعمائة وتسعة وثلاثون هجري)

الفروع (١) في النموذج المرفق

الهيئة العامة للزكاة والدخل
GENERAL AUTHORITY OF ZAKAT & TAX
(146)

شهادة
CERTIFICATE
فرع جدة

رقم الشهادة : ١٢٠١٠٩٩٩
التاريخ : ١٤٣٨/٠٧/٢٨ هـ
الرقم للميز : ٣٠١٢٠٧٣٧

هذه الوثيقة مستخرجة من النظام الآلي ولا تحتاج إلى توقيع
لايحتد بهذه الشهادة إلا بعد التحقق من موقع الهيئة www.dzit.gov.sa

قائمة فروع المكلف مؤسسة محمد اسامة السمان للمقاولات
وسجل تجاري رقم ٤٠٣٠١٦٦٤٩١ رخصة رقم ١١٢٠٢٩٠٧٩٤٧

رقم السجل	الرخصة	إسم الفرع	المدينة
٤٠٣٠١٩٥٥١١	١١١٠٣٠١١٥٣٥٢	مصنع محمد اسامة بن السمان فرع مؤسسة	جدة

صفحة رقم : ١



الهيئة العامة للزكاة والدخل
GENERAL AUTHORITY OF ZAKAT & NISAK

شهادة
CERTIFICATE

شهادة تسجيل في ضريبة القيمة المضافة
VAT registration certificate

تاريخ الترخيص: ١٤٣٩/٠٧/٢١ هـ
الرقم للمميز: ٣٠٠١٢٠٣٣٧

تقدم الهيئة العامة للزكاة والدخل بأن المكلف: مؤسسة محمد اسامه السنان للمطاولات
مسجل في ضريبة القيمة المضافة بتاريخ: ١٤٣٩/٠٧/٢١ هـ، وحصل الرقم الضريبي: ٣٠٠١٢٠٣٣٧٠٠٠٠٣

عنوان المركز الرئيسي :
المنطقة : جدة : الحي : الواحة
صندوق البريد : الرمز البريدي : ٢٢٣٨٢
الهاتف : ٠٠٩٦٦٥٣٤٥٠٤١

الهيئة العامة للزكاة والدخل



هذه الوثيقة مرسلة من النظام آلياً ولا تحتاج إلى توقيع

الرقم ١٥٩٠٥

التاريخ ١٤٣٦/١١/٠٩

رقم الملف ٥٥٧٧



شهادة تصنيف المقاولين

الجمهورية العربية السورية

وزارة الشؤون البلدية والقروية

وكالة الوزارة لشؤون تصنيف المقاولين

رقم ١٨٦٩٨

اسم المقاول : مؤسسة محمد اسامه السمان للمقاولات

نوع الملكية : مؤسسة فردية صاحبتها محمد اسامه يحي السمان الجنسية سورية رقم الإقامة ٢٢٣٣٤٨١٣٤٦ براسمال اجبي

رقم السجل التجاري : ٤٠٣٠١٦٦٤٩١

العضوان : ص. ب. ١٣٢٩٣٤ جلة ٢١٣٨٢

الدرجة

الدرجة

الدرجة

الدرجة

الدرجة

الدرجة

المباني

الطرق

اعمال المياحة والصرف الصحي

الاعمال الكهربائية

الاعمال الميكانيكية

(مصنف في خمسة مجالات فقط)

مصدره : جلة

هاتف : ٠١٢٦٧٠٦٨٥٣



تنتهي صلاحية هذه الشهادة بتاريخ : ١٤٤٠/١١/٠٩ هـ

وكيل الوزارة لشؤون تصنيف المقاولين

م / عبدالله بن محمد المطيري



ملاحظة هامة جداً : يجب مطابقة الصور على الأصل في كل حالة كل تشد أو تغيير في هذه الشهادة يلعها.

الهيئة العامة لإصدار وحماية البيئة
The General Authority for Environment Protection (GAEP)
وكالة حماية البيئة
(108)

رقم: ٢٠٦٩
تاريخ: ١٢٩/١/٢٧هـ
المرحلات: —

خطاب تجديد موافقة بيئية

السادة مصنع محمد أسامة يحيى السمان للمنتجات الحديدية

المرتبين

فأكن: ١٣٧٤٤٤٧٩

السلام عليكم ورحمة الله وبركاته،،،

إشارة إلى خطابكم المقيد بالهيئة برقم ٥٦٢٨ وتاريخ ١٢٨/١٠/٢٥هـ لطلب الحصول على تجديد الموافقة البيئية لمصنع محمد أسامة يحيى السمان للمنتجات الحديدية والواقع في منطقة مسنوعات القرية التجارية بالخمر - المرحلة الأولى - جدة - منطقة مكة المكرمة.

وبعد الإطلاع على مسوغات الطلب والتقارير الفني المرفق من قبل المختصين لدينا، أتضح أن هذا النشاط (إنتاج فتحات التهوية غير الآلية) لا يتوقع عنه تأثيرات بيئية سلبية حادة.

عليه فإن هذه الهيئة ليس لديها مانع في ما يخصها لمزاولة النشاط المطلوب لمدة سنة واحدة من تاريخه. على أن يتم الالتزام بالاشتراطات التالية:

- إن إجراء أي تعديل أو توسعة أو تغيير في النشاط أو حجم النشاط يلزم هذه الموافقة.
- الالتزام بالتقائيس والاشتراطات البيئية التي تضمنها النظام العام للبيئة واللوائح التنفيذية.
- الالتزام بمتطلبات السلامة والصحة المهنية للعمال والإجراءات الخاصة بالدفاع المدني والجهات الحكومية ذات العلاقة.
- الالتزام بالتخلص من المخلفات الصناعية الصلبة والسائلة والصرف الصحي عن طريق جهات مؤهلة من الهيئة.
- السماح لمختصي الهيئة بالدخول للمنشاء في أي وقت.
- الالتزام بما يأتي في محضر لجنة المصانع خارج نطاق المواقع المخصصة للحدن الصناعية.

وتقبلوا تحياتي،،،

نائب رئيس الهيئة لشؤون البيئة

د. أحمد بن محمد الأنصاري

عن

مح. الإدارة العامة لحماية البيئة - جدة
مح. الهيئة العامة لحماية البيئة بمنطقة مكة المكرمة
لجنة لإدارة (٢٠١٨) بتاريخ ١٢٨/١/٢٧هـ

Kingdom of Saudi Arabia
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Fax: +966 12 651 1424
e-mail: gaep@gov.sa
www.gaep.gov.sa

صندوق التنمية الصناعية السعودي
Saudi Industrial Development Fund
(١٢٢٢)

شهادة عدم وجود علاقة إفراضية

الموضوع: شهادة عدم وجود علاقة إفراضية

إلى من يهمه الأمر

يشهد صندوق التنمية الصناعية السعودي بأنه لا توجد علاقة إفراضية حالياً بين الصندوق ومصنع محمد يحيى السمان للمنتجات الحديدية المرخص له بموجب ترخيص استثمار صناعي رقم ١١٠٣٠١١٥٣٥٢-٠١ وتاريخ ١١/٢٩/١٤٣٠هـ (موقع المصنع في جدة).

وبناءً على طلبهم صدرت هذه الشهادة دون أدنى مسؤولية أو التزام على الصندوق.

مدير إدارة تسيق وخدمات القروض

على بن منصور الضلعان

صندوق التنمية الصناعية السعودي
Saudi Industrial Development Fund
عنوان: شارع الملك فهد - الرياض - ١١٥٥٠

رقم الترخيص: ١١٠٣٠١١٥٣٥٢-٠١
تاريخ الترخيص: ١١/٢٩/١٤٣٠هـ

PROJECTS REFERENCE

No.	Type	Projects / Description	Customer	Location/ area	Contract Period
13	Supply of HVAC Duct & Accessories	KAUST Projects, Remodelling	Nesmah Asia Contracting Company	Jeddah	Still on progress
14	Supply of HVAC Duct & Accessories	Intermediate School Building, Royal Commission	Nesmah Asia Contracting Company	Yanbu	Still on progress
15	Supply of HVAC Duct & Accessories	Secondary School Building, Royal Commission	Nesmah Asia Contracting Company		Still on progress
16	Supply of HVAC Duct & Accessories	Labor Housing Building, Royal Commission	Nesmah Asia Contracting Company	Yanbu	Still on progress
17	Supply of HVAC Duct & Accessories	Jamjoom Villa	Nesmah Asia Contracting Company	Jeddah	Still on progress
18	Supply of HVAC Duct & Accessories	University of Tabuk Projects	Sharq Altania company	Tabuk / Teima	Still on progress
19	Supply of HVAC Duct & Accessories	Nobola Hotel	Techno Electro Mechanical Company	Makkah	Still on progress
20	Supply of HVAC Duct & Accessories	Al Rajhi Hotel	Techno Electro Mechanical Company	Makkah	Still on progress
21	Supply & Installation of Ductwork & Accessory	Warehouse Projects	Abunayyan Trading Corporation	Jeddah / Madinah	Still on progress
22	Supply & Installation of Ductwork & Accessory	Can Factory in Sumeshi	Al Salem York	Sumeshi	Finished
23	Supply & Installation of Ductwork & Accessory	North Jeddah Enhanced Odou	Abuljadayel	North Jeddah	Finished
24	Supply & Installation of Ductwork & Accessory	Zam Zam Water Plant	Abuljadayel	Makkah	Finished

No.	Type	Projects / Description	Customer	Location/ area	Contract Period
1	Supply of HVAC Duct & Accessories	Jabal Omar Development Project	Al Furtaim Eng	Makkah	Still on progress
2	Supply of HVAC Duct & Accessories	Umm Al-Qura University Projects	Al Arrab Contracting	Makkah	Finished
3	Supply of HVAC Duct & Accessories	Taliba University - Car Parking	Alwan Astora	Madinah	Finished
4	Supply of HVAC Duct & Accessories	Blin Dawood	Mahmood Saleh Al Abbar Company	Madinah	Finished
5	Supply of HVAC Duct & Accessories	Royal Commission Headquarter	Beijing Construction Engineering Group Co., LTD.	Yanbu	Still on progress
6	Supply of HVAC Duct & Accessories	Golden Tower	EFECO LLC	Jeddah	Still on progress
7	Supply of HVAC Duct & Accessories	Taliba University Projects	GEC - Madinah	Madinah	Still on progress
8	Supply of HVAC Duct & Accessories	Al Naghi Residential Villa	Mohammed A Farhat Company	Jeddah	Still on progress
9	Supply of HVAC Duct & Accessories	All Projects, in Rabigh 3	Rabigh General Contractors	Rabigh	Finished
10	Supply of HVAC Duct & Accessories	King Abdul Aziz University Project	Saudi ABV	Jeddah	Still on progress
11	Supply of HVAC Duct & Accessories	Saudi Airlines Catering Projects	Technowatt LLC	Dammam	Finished
12	Supply of HVAC Duct & Accessories	Al Murooj Sports Complex	Technowatt LLC	Rabigh	Still on progress

PROJECTS REFERENCE

No.	Type	Projects / Description	Customer	Location/ area	Contract Period
37	Supply & Installation of Duct work & Accessories	Saudi Fransi Tower	Samman Factory for Air Distribution Systems	Riyadh	Still on progress
38	Supply & Installation of Duct work & Accessories	Al Rajhi Tower	Samman Factory for Air Distribution Systems	Riyadh	Still on progress
39	Supply & Installation of Duct work & Accessories	Arab National Bank (ANB)	Samman Factory for Air Distribution Systems	Riyadh	Still on progress
40	Supply of HVAC Duct & Accessories	University of Hail Projects	Al Mazaya	Qassem	Still on progress
41	Supply of HVAC Duct & Accessories	Red Sea Mall	Nasco	Jeddah	Still on progress
42	Supply of HVAC Duct & Accessories	50 Bed Hospital Projects	Al Alamiyya	Jizan	Still on progress
43	Supply of HVAC Duct & Accessories	Ministry of Health Housing	Samman Factory for Air Distribution Systems	Baish	Still on progress
44	Supply & Installation of Duct work & Accessories	Renovation and Improvement of Interior Airports (Third Stage)	General Authority of Civil Aviation	8 Airports 5000 sqm	18 Months
45	Supply & Installation of Duct work & Accessories	Restoration of Prince Sultan Military Hospital in Taif (Stage I) Competition No. 30/24/1432	Armed Forces Medical Services Department	Taif 9000 Sqm	12 Months
46	Supply & Installation of Duct work & Accessories	Restoration of "Al - Hada" Military Hospital First Floor in Taif	Armed Forces Medical Services Department	Taif 2790 Sqm	18 Months
47	Supply & Installation of Duct work & Accessories	Processing of Control Rooms for Networks, Systems and Computer Equipments Supported for Airports (IT)	General Authority of Civil Aviation	7 Airports 3000 Sqm	18 Months
48	Supply & Installation of Duct work & Accessories	Upgrading of Workshop Equipments at Sectors	General Authority of Civil Aviation	Abha & Jeddah 4600 Sqm	20 Months

No.	Type	Projects / Description	Customer	Location/ area	Contract Period
25	Supply & Installation of Ductwork & Accessore	Airport Projects	Samman Factory for Air Distribution Systems	Abha / Tabul Jizan	Finished
26	Supply & Installation of Ductwork & Accessore	All NCB bank in K.S.A	Samman Factory for Air Distribution Systems	All over Kingdom	Still on progress
27	Supply & Installation of Ductwork & Accessore	Pathology & Medical	Samman Factory for Air Distribution Systems	Jeddah	Still on progress
28	Supply of HVAC Duct & Accessories	General Commission for Tourism & Antiquities	Samman Factory for Air Distribution Systems	Jizan	Finished
29	Supply of HVAC Duct & Accessories	King Faisal Medical Hospital	Samman Factory for Air Distribution Systems	Jeddah	Finished
30	Supply of HVAC Duct & Accessories	Alinna Bank	Samman Factory for Air Distribution Systems	Jeddah	Finished
31	Supply of HVAC Duct & Accessories	Bank Al Jazira	Samman Factory for Air Distribution Systems	Makkah	Finished
32	Supply of HVAC Duct & Accessories	Bahra Cables	Samman Factory for Air Distribution Systems	Bahra	Still on progress
33	Supply of HVAC Ducts Accessories	Alsayf Beverage Factory	Mohammed A Farhat Company	Jeddah	Still on progress
34	Supply & Installation of Duct work & Accessories	Sherayya Schools	Samman Factory for Air Distribution Systems	Makkah	Still on progress
35	Supply & Installation of Duct work & Accessories	Kindee Graden Schools	Samman Factory for Air Distribution Systems	Makkah	Still on progress
36	Supply & Installation of Duct work & Accessories	Dr. Soliman Fakeeh Hospital	Samman Factory for Air Distribution Systems	Jeddah	Still on progress



No.	Type	Projects / Description	Customer	Location/ area	Contract Period
49	Supply & Installation of Duct work & Accessories	Aeronautical Civil Radar Constellation (ACRC) (Foundation Radar Tower)	General Authority of Civil Aviation	18 Airports 4800 Sqm	12 Months
50	Supply & Installation of Duct work & Accessories	Renovation and Improvement VIP Lounges and Executive Offices at Some Regional Domestic Airports	General Authority of Civil Aviation	4 Airports 36000 Sqm	18 Months
51	Supply & Installation of Duct work & Accessories	Construction of "Red Lobster & Longhorn" Restaurants for Americana Co.	Samman Factory for Air Distribution Systems	Riyadh 2200 Sqm	7 Months
52	Supply & Installation of Duct work & Accessories	Renovation of High Education Minister Office	Samman Factory for Air Distribution Systems	Jeddah 1000 Sqm	7 Months
53	Supply & Installation of Duct work & Accessories	NCB / Renovation of Sebya Branch No. 443 - Jizan	Samman Factory for Air Distribution Systems	Jizan 600 Sqm	6 Months
54	Supply & Installation of Duct work & Accessories	NCB / Renovation of Al - Shouhadaa Branch No. 304 - Taif	National Commercial Bank (NCB)	Makkah	6 Months
55	Supply & Installation of Duct work & Accessories	NCB / Construction of Rabigh Branch No. 151	National Commercial Bank (NCB)	Rebigh 2700 Sqm	7 Months
56	Supply & Installation of Duct work & Accessories	NCB / Construction of Abha Branch (King Faisal - Arren)	National Commercial Bank (NCB)	Abha 440 Sqm	6 Months
57	Supply & Installation of Duct work & Accessories	NCB / Construction of New Sebya Branch - Jizan	National Commercial Bank (NCB)	Jizan 400 Sqm	6 Months
58	Supply & Installation of Duct work & Accessories	NCB / Construction of Jizan Al Dayer Branch - Jizan	National Commercial Bank (NCB)	Jizan 400 Sqm	6 Months
59	Supply & Installation of Duct work & Accessories	NCB / Construction of Al Nouman Branch- Khamis Mushait	National Commercial Bank (NCB)	Khamis Mushait 900 Sqm	8 Months
60	Supply & Installation of Duct work & Accessories	Architectural, Mechanical and Electrical Works for the First Floor of Medical Support Building	King Faisal Specialist Hospital and Research Center	Jeddah 1350 Sqm	12 Months
61	Supply & Installation of Duct work & Accessories	Al Jazira Bank Eshbilia - Branch Riyadh	Al Jazira Bank	Riyadh 1720 Sqm	7 Months
62	Supply & Installation of Duct work & Accessories	Al Jazira Bank Ring Road - Branch - Madina	Al Jazira Bank	Medina 920 Sqm	6 Months
63	Supply & Installation of Duct work & Accessories	NCB / Construction of Al - Nouman	National Commercial Bank (NCB)	Riyadh 400 Sqm	6 Months
64	Supply & Installation of Duct work & Accessories	Machine Foundations for "Bahra Cable"	Bhara Advanced Cable Manufacture Co.	Riyadh & Jeddah 1800 Sqm	7 Months
65	Supply & Installation of Duct work & Accessories	Restoration of Dr. Soliman Fakeeh Hospital	Dr. Soliman Fakeeh Hospital	Jeddah 2150 Sqm	10 Months
66	Supply & Installation of Duct work & Accessories	Restoration of Abdul Latif Jameel Tabuk Center	Abdul Latif Jameel Company LTD. Co	Tabuk 1600 Sqm	6 Months
67	Supply & Installation of Duct work & Accessories	Condition Duct Works	Abuljadayel Co. Contracting & Maintenance LTD.	Jeddah	6 Months
68	Supply & Installation of Duct work & Accessories	Al Kandrah Branch	National Commercial Bank (NCB)	Jeddah 1800 Sqm	9 Months
69	Supply & Installation of Duct work & Accessories	Al Madinah Branch	Al Jazira Bank	Al Madinah 400 Sqm	6 Months
70	Supply & Installation of Duct work & Accessories	Hail Bank	Al Jazira Bank	Hail 720 Sqm	9 Months
71	Supply & Installation of Duct work & Accessories	Replacement of Computer Center Equipment, and Central Work Shop Facility	General Authority of Civil Aviation	Jeddah 3200 Sqm	16 Months
72	Supply & Installation of Duct work & Accessories	Mahall Aseer Branch	National Commercial Bank (NCB)	Abha 1200 Sqm	12 Months

PROJECTS REFERENCE

No.	Type	Projects / Description	Customer	Location/ area	Contract Period
73	Supply & Installation of Duct work & Accessories	Al Eskan Al Ganoby Branch	National Commercial Bank (NCB)	Jeddah	7 Months
74	Supply & Installation of Duct work & Accessories	Al Tahliyah Branch	National Commercial Bank (NCB)	Jeddah	9 Months
75	Supply & Installation of Duct work & Accessories	Al Tahliyah Branch / Mezzanine Floor	National Commercial Bank (NCB)	Jeddah	6 Months
76	Supply & Installation of Duct work & Accessories	Al Jamaa Branch	National Commercial Bank (NCB)	Riyadh	7 Months
77	Supply & Installation of Duct work & Accessories	King Abdul Aziz Road Branch	Bank Albilad	Jeddah	9 Months
78	Supply & Installation of Duct work & Accessories	Alsolye Branch	Bank Samba	Riyadh	9 Months
79	Supply & Installation of Duct work & Accessories	Yanbu Main Branch	National Commercial Bank (NCB)	Yanbu	11 Months
80	Supply & Installation of Duct work & Accessories	Yanbu Quick Bay Branch	National Commercial Bank (NCB)	Yanbu	9 Months
81	Supply & Installation of Duct work & Accessories	Heraa Branch	National Commercial Bank (NCB)	Jeddah	9 Months
82	Supply & Installation of Duct work & Accessories	Al Naseriah Branch	National Commercial Bank (NCB)	Jeddah	7 Months
83	Supply & Installation of Duct work & Accessories	Al Tahliyah Branch First Floor	National Commercial Bank (NCB)	Jeddah	8 Months
84	Supply & Installation of Duct work & Accessories	Fire Fighting System for Al Tahliyah & Al Nakheel Branch	National Commercial Bank (NCB)	Jeddah	6 Months
85	Supply & Installation of Duct work & Accessories	Social Building	Olaz Press	Jeddah	16 Months
86	Supply & Installation of Duct work & Accessories	Social College	Umm Al-Qura University	Makkah	9 Months
87	Supply & Installation of Duct work & Accessories	Dentistry College	Umm Al-Qura University	Makkah	9 Months
88	Supply & Installation of Duct work & Accessories	Practical Sciences College	Umm Al-Qura University	Makkah	8 Months
89	Supply & Installation of Duct work & Accessories	Building	Al Haram Museum's Bathrooms	Makkah	9 Months
90	Supply & Installation of Duct work & Accessories	Al Khafji Branch	Al Hamrany Co.	Al Khafji	10 Months
91	Supply & Installation of Duct work & Accessories	Upgrading of Madinah Road Work Shop (Nissan)	Al Hamrany Co.	Jeddah	9 Months
92	Supply & Installation of Duct work & Accessories	Villa	Mohamed Bin Ateeq Al - Baqny	Jeddah	12 Months
93	Supply & Installation of Duct work & Accessories	Residence Building & Villa Extension	Private Building	Jeddah	20 Months
94	Supply & Installation of Duct work & Accessories	Residence Building & Villa Extension	Abd El Wahab Ahmad Zafar	Jeddah	16 Months
95	Supply & Installation of Duct work & Accessories	Residence Building	Private Building	Jeddah	20 Months
96	Supply & Installation of Duct work & Accessories	Residence Private Villa	Private Villa	Jeddah	18 Months



No.	Type	Projects / Description	Customer	Location/ area	Contract Period
97	Supply & Installation of Duct work & Accessories	Tanks Factory & Residence, Head Office Building	Abd El Rahman Tasqia	Jeddah	12 Months
98	Supply & Installation of Duct work & Accessories	Redidence Building & Villa Extension	Private Building	Jeddah	16 Months
99	Supply & Installation of Duct work & Accessories	Central Park Mall Fountains	In Maia Co.	Jeddah	9 Months
100	Supply & Installation of Duct work & Accessories	Kids Home	Om Al Qura Charitable Association	Makkah	12 Months
101	Supply & Installation of Duct work & Accessories	Al Haram Works	Water Dispenser	Makkah	9 Months
102	Supply & Installation of Duct work & Accessories	Bin Laden Showroom	Sheikh Abd - Elrahman Tasqia	Jeddah	12 Months
103	Supply & Installation of Duct work & Accessories	Renovation Villa	Sheikh Abd - Elrahman Tasqia	Jeddah	12 Months
104	Supply & Installation of Duct work & Accessories	School	Ministry of Education	Al - Taif	11 Months
105	Supply & Installation of Duct work & Accessories	Villa	Eng. Nabil Qutob	Makkah	16 Months
106	Supply & Installation of Duct work & Accessories	School	Ministry of Education	Al - Taif	9 Months
107	Supply & Installation of Duct work & Accessories	Residence Building	Abd El Wahab Ahmad Zafar	Jeddah	12 Months
108	Supply & Installation of Duct work & Accessories	Millenium Joffrey's Lounge	Al - Ghazawy Co.	Jeddah	9 Months

No.	Type	Projects / Description	Customer	Location/ area	Contract Period
109	Supply & Installation of Duct work & Accessories	PDI Workshop	Al - Hamrany Co.	Jeddah	10 Months
110	Supply & Installation of Duct work & Accessories	Villa	Sheikh Abdul Elaziz Al - Hamrany	Jeddah	9 Months
111	Supply & Installation of Duct work & Accessories	Villa	Sheikh Abd - Elrahman Tasqia	Jeddah	11 Months
112	Supply & Installation of Duct work & Accessories	Kodal Pump Station	Bin Laden Group	Makkah	9 Months
113	Supply & Installation of Duct work & Accessories	Main Building of Air Navigation Services	General Authority of Civil Aviation	Jeddah	16 Months
114	Supply & Installation of Duct work & Accessories	Machine Foundations	Bhara Advanced Cable Manufacture Co.	Bahra	16 Months
115	Supply & Installation of Duct work & Accessories	Construction Building	Ministry of Defence	Al - Taif	12 Months
116	Supply & Installation of Duct work & Accessories	Headquarter	General Authority of Civil Aviation	Jeddah	12 Months
117	Supply & Installation of Duct work & Accessories	Heraa Hospital	Al Khaleej Medical Co.	Makkah	10 Months
118	Supply & Installation of Duct work & Accessories	Bupa Clinic	Al Judur Contracting	Jeddah	Still on progress
119	Supply & Installation of Duct work & Accessories	Blood Bank	Al Hunain Contracting	Jeddah	Still on progress
120	Supply & Installation of Duct work & Accessories	Warehouse Projects	Al Tayyar Cargo	Jeddah	Still on progress

PROJECTS REFERENCE

N0.	Type	Product	Vendor	Project
1	Electromechanical Works	Supply of G1 Ducts and Accessories	General Authority of Civil Aviation	Domestic Airport Projects
2	Electromechanical Works	Supply of G1 Ducts and Accessories	General Authority of Civil Aviation	Improvement of Airport Projects
3	Electromechanical Works	Supply of G1 Ducts and Accessories	General Authority of Civil Aviation	Prince Sultan Bin Abdul Aziz Airport - Tabuk
4	Electromechanical Works	Supply of G1 Ducts and Accessories	General Authority of Civil Aviation	Tabuk Airport Development West Side Project
5	Electromechanical Works	Supply of G1 Ducts and Accessories	Saudi Electrical Company (SEC)	All Projects in KSA
6	Electromechanical Works	Supply of G1 Ducts and Accessories	Ministry of Health	All Projects in KSA
7	Electromechanical Works	Supply of G1 Ducts and Accessories	Ministry of Defence	Hospital and Armed Forces Administration
8	Electromechanical Works	Supply of G1 Ducts and Accessories	National Guard / King Abdul Aziz Medical City	Pathology and Medical Laboratory Building
9	Electromechanical Works	Supply of G1 Ducts and Accessories	King Faizal Specialist hospital	King Faizal Specialist hospital
10	Electromechanical Works	Supply of G1 Ducts and Accessories	Saudi Commission for Tourism & Antiquities	Saudi Commission for Tourism & Antiquities
11	Electromechanical Works	Supply of G1 Ducts and Accessories	Royal Commission- Yanbu	Royal Commission Head Quarters Building
12	Electromechanical Works	Supply of G1 Ducts and Accessories	Nesma Asia Contracting Company	Labor Housing Projects- Tabou
13	Electromechanical Works	Supply of G1 Ducts and Accessories	Nesma Asia Contracting Company	Intermediate Secondary School Projects
14	Electromechanical Works	Supply of G1 Ducts and Accessories	NCB bank	ALL NCB Banks in KSA
15	Electromechanical Works	Supply of G1 Ducts and Accessories	Bank Al Jazira	Bank Al Jazira
16	Electromechanical Works	Supply of G1 Ducts and Accessories	Alinma bank	Alinma bank
17	Electromechanical Works	Supply of G1 Ducts and Accessories	Taj Al Ithnan	Admin & Class Room Building
18	Electromechanical Works	Supply of G1 Ducts and Accessories	RCC	Jabal Omar Development Projects
19	Electromechanical Works	Supply of G1 Ducts and Accessories	Taiba University	Teaching Hospital Projects
20	Electromechanical Works	Supply of G1 Ducts and Accessories	King Abdullah University	West Harbour Remodelling School Projects

N0.	Type	Product	Vendor	Project
21	Electromechanical Works	Supply of G1 Ducts and Accessories	Bongkyung Construction Company	King Abdul Aziz University, Female Campus Project
22	Electromechanical Works	Supply of G1 Ducts and Accessories	Al Arab Contracting Company	Facility Housing Projects
23	Electromechanical Works	Supply of G1 Ducts and Accessories	Al Zahli Group Companies	Multiple level Parking Building
24	Electromechanical Works	Supply of G1 Ducts and Accessories	Taiba University	Saudi Bin Laden Group Projects
25	Electromechanical Works	Supply of G1 Ducts and Accessories	Taiba University	Teaching Hospital Projects
26	Electromechanical Works	Supply of G1 Ducts and Accessories	Al Arab Contracting Company	Umm Al Khura University, Teaching Hospital
27	Electromechanical Works	Supply of G1 Ducts and Accessories	Abujadhayel Co for Contracting & Maintenance	Pump Station Projects
28	Electromechanical Works	Supply of G1 Ducts and Accessories	Abujadhayel Co for Contracting & Maintenance	Extension of New Zam Zam Water Tanks
29	Electromechanical Works	Supply of G1 Ducts and Accessories	Al Saad General Contracting	Golden Tower
30	Electromechanical Works	Supply of G1 Ducts and Accessories	Jawdat Contracting Company	Institute of Public Administration
31	Electromechanical Works	Supply of G1 Ducts and Accessories	Mohamed Harsani Architects	Al Khair Tower
32	Electromechanical Works	Supply of G1 Ducts and Accessories	Techno Electro Mechanical Works Co Ltd	Nobala Hotel
33	Electromechanical Works	Supply of G1 Ducts and Accessories	Techno Electro Mechanical Works Co Ltd	Al Rajha Hotel
34	Electromechanical Works	Supply of G1 Ducts and Accessories	Al Salem York Services Co Ltd	Can Factory
35	Electromechanical Works	Supply of G1 Ducts and Accessories	General and Electromechanical Company	400 Bed Hospital Projects
36	Electromechanical Works	Supply of G1 Ducts and Accessories	Saudi Albroj Company	Saudi Albroj Company
37	Electromechanical Works	Supply of G1 Ducts and Accessories	IFAD Contractors Company Ltd	IFAD Contractors Company Ltd

هندسة المرافق

المطارات الداخلية
DOMESTIC AIRPORTS

شهادة

نفيدكم انه سبق التعامل مع مصنع محمد أسامة يحيى السماان
للمنتجات الحديدية وذلك لتصنيع وتوريد وتركيب مجاري الهواء بكافة
أنواعها وإكسسواراتها في عدة مشاريع تابعة للهيئة العامة للطيران المدني
وبذلك خلال الخمس سنوات السابقة وإن الأعمال المنوه عنها بماليته تمعمل
بصورة جيدة حتى تاريخه ، هذا للعلم والإحاطة.

ولكم تحياتي ""

مدير عام هندسة المرافق

الحالي بن رضا جمل الليل

الهيئة العامة للطيران المدني
General Authority of Civil Aviation

رقم: ٢١٥٥ / ٢١٥٥
Date: ٢١٥٥ / ٢١٥٥
التوقيع: [Signature]
Msc: [Signature]

الهيئة العامة للطيران المدني
General Authority of Civil Aviation
P.O. Box 999 Jeddah 21511 - Kingdom of Saudi Arabia

رقم الترخيص: ١٢٣٤٥٦٧٨٩
 رقم الهاتف: ٠١١ ٤٤٤ ٤٤٤٤
 بريد إلكتروني: info@saudi-airports.gov.sa
 P.O. Box ١١٦٦١ - Jeddah ٢١٤٦١ - Kingdom of Saudi Arabia

التاريخ:
 التوقيع:
 المصادق:


 الهيئة العامة للطيران المدني
 General Authority of Civil Aviation

هئية المرافق

السادة / مؤسسة محمد أسامة السمان المقاولات
 ص.ب ١٣٣٩٢ جدة ٢١٣٨٢ فاكس ٠١٣٦٧٤٤٩٧
 رعاية المهندس/مظهر الأصغر – مدير الإدارة الهندسية
 السلام عليكم ورحمة الله وبركاته

الموضوع : استكمال تطوير مطار الأمير سلطان بن عبدالعزيز بشيخ
الوضوح : اعتماد مواد متجانسة.

إشارة إلى خطابكم رقم ٥٠٥٢٠١٥١٠٣٧ بتاريخ ١٦ / ٠٧ / ١٤٣١ هـ . ورقسم
 ١٠٥٠١٥١٠٦ بتاريخ ٢٢ / ٠٧ / ١٤٣١ هـ بخصوص الموضوع أعلاه والقادمة من قبلكم ضمن اتصال
 المشروع المذكور أعلاه ، وبعد الإطلاع على ماورد به من مرفقات، تم اعتماد الشركات ككما هو
 موضحة في الجدول التالي:

المواد	مواصفات (الباء – الصرف الضمني)
خطوط الحريق	NAMAT+NEPROPLAST
محاري الهواء للتكييف	SAUDI STEEL PIPE COMPANY (SSP)
مواد عزل سباري الهواء	M.S.C
طلاء V&V	AFFICO
صنابير الحريق ومعدات الحريق	M.S.C
	SFFECO

ولكم تحياتي،

مدير عام هيئة المرافق المتكف

 م / أسامة بن حسن اسكنديري

MECHANICAL (AC DUCT)

Contractor: MUJAL SAMMAN EST.

MATERIAL SUBMITTAL

Project Name: IMPROVEMENT OF DOMESTIC AIRPORTS
Contractor: MUJAL SAMMAN EST.

Submitted Date: 3/4/2012

PURPOSE OF SUBMITTAL
☐ For Information ☐ For Comment ☐ For Approval

DISCIPLINE
☐ Civil ☐ Architectural ☐ Structural ☒ HVAC ☐ Plumbing ☐ Electrical ☐ Gas Pipe

ATTACHMENT
☒ Catalogue ☐ Drawing ☐ Certificate ☐ Sample ☐ Tech. Data ☐ Calculation

MATERIAL/EQUIPMENT
 Note: Please use the attachment in case items are more than the provided space.

Submittal #	Item Name and Description	Manufacturer/Supplier	Specification Ref.	Action Code	Rev. No.
1	GALVANIZED AC DUCT	M.S.C (MAUSAMA AL SAMMAN)	ATM	A	-
		SHARGAWI			

Contractor's Project Manager: *Esp. - Osama Ezzeldien*

Signature: _____ Date: 3/4/2012

Consultant's Remarks
 Approval of the above materials does not relieve the Contractor from its contractual obligations.

Consultant Representative: _____ Signature: _____

Resident Project Manager: _____ Signature: _____

Action Code
☐ A Approved ☐ B Approved as Noted ☐ C Approved as Held (Re-submittal required) ☐ D Disapproved ☐ E No Action

REF. OUT: _____ Signature: _____ Date: _____

REF. IN: _____ Signature: _____ Date: _____

Material Submittal

الشركة السعودية للكهرباء
Saudi Electricity Company

Materials Sector
Purchasing Department
Vendors Affairs Division

Date: 02.07.2015
Vendor Name: Mohammed Usama Yahya Al Samman Factory
Attention: Mohamed Sabry
C.R: 4030195511
E-mail: m.sabry@msc-sa.com

SUBJECT: VENDOR'S REGISTRATION NOTIFICATION

Dear Sir,
We are pleased to inform you that your commercial documents have been evaluated and your company is now registered with Saudi Electricity Company under Vendor No (2006090), for materials:

HEATING, VENTILATING, AND AIRCONDITIONING EQUIPMENT

You must fill up the prequalification form / requirements whenever it is applicable, which available on SEC website www.sec.com.sa / procurement / MFRs' prequalification to deliver materials based on your activity in your Commercial Registration:

Applicable for Distribution Materials	Applicable for Generation Materials	Applicable for Industrial Security Materials	Applicable for Transportation Materials
-	-	-	-

When you log on the system as a first time please change your password immediately through e-bidding link which available on SEC webpage.

Notice:
 1. This approval should not be construed as commitment by SEC to purchase from you but when needed SEC will invite you to bid and will be evaluated based on the established policies & procedures.
 2. If the Bid is considered as a LOW VALUE you must quote through the e-bidding system. However, if the bid is a HIGH VALUE you must submit the quotation in a closed envelope and submit to reception of purchasing sections in operating areas requested the materials.

We would suggest that you maintain a continuous contact with Purchasing Sections in SEC operating areas.
We thank you for your interest to deal with Saudi Electricity Company.

Best Regard,

ibrahim Al-Ghandi
 Headquarters - Cratich Tower (AB) - 6th Floor
 Office - +966 (11) 8079651
 Riyadh- Saudi Arabia
ibrahim.algandi@sec.com.sa

الجمهورية العربية السورية
وزارة الدفاع
رئاسة هيئة الأركان العامة
الإدارة العامة للخدمات الطبية للقوات المسلحة
إدارة مستشفيات القوات المسلحة بمنطقة الحافظ
إدارة التشغيل والصيانة

الرقم :
التاريخ :
البيانات :
الموضوع :

مشهد

تشهد إدارة التشغيل والصيانة بإدارة مستشفيات القوات المسلحة بمنطقة الحافظ معتمده لصنع محمد أسامة السمان للمنتجات الحديدية تصنيع وتركيب أعمال الدكبات وكسوساتها. دون أدنى مسؤولية قانونية لإتجاه طرف ثالث وقد منحت لهم هذه الشهادة بناءً على طلبهم.

والسلام عليكم،،،

المهندس
أحمد بن يحيى التصودي
مدير إدارة التشغيل والصيانة
بمستشفيات القوات المسلحة بمنطقة الحافظ

شهادة / ملف مشروع ترقيم مستشفى الأمير سلطان

مطبعة الوثائق العامة - دمشق

الجمهورية العربية السورية
وزارة الصحة
الدائرة العامة للأمراض
إدارة الأوبئة على التنشيط

الرقم :
التاريخ :
المشارعات :

السادة / مصنع أسامة يحيى السمان للمنتجات المعدنية . المحترمين

ص.ب. : ١٣٩٣٤ ج.د. : ٣١٢٨٢ ت. : ٠١١٣٧٠٦٨٥٢ ف. : ٠١١٣٧٤٤٤٧٩

السلام عليكم ورحمة الله وبركاته ... وبعد ،،،

إشارة إلى خطابكم رقم (٤٨٣٣٥) وتاريخ ١٢/٧/٢٠١٧هـ بخصوص طلبكم تاهيلكم كمورد معتمد لتوريد مجازي هواء التكيف للصناعة من الصاج الجلفن فقط ، نود أن نشكركم على اهتمامكم بالشاركة بتقديم منتجاتكم المصنوعة في سورية ونشكركم بانه تم دراسة ملف التاهيل الرافق بخطابكم للمنتج عاليه ويمكنكم تقديم هذا المنتج لشاريع الوزارة مع الالتزام بمطابقتها مع مواصفات المشاريع بالوزارة .

مع أطيب تحياتي وتقديري ،،،،،

مدير إدارة الإشراف على التنفيذ
الهندس / منصور بن محمد الأسدي

وزارة الصحة
Ministry of Health

البريد الإلكتروني (١١١٧٦) هاتف (٤٠٣٩٩٢٢) فاكس (٤٠٤٠٧٩٧) (٤٠٤٠٧٩٧) (٤٠٣٩٩٢٢) Fax (40407997) Tel. (4033992) Riyadh (11176)

مطبعة الوثائق العامة - دمشق

PREVIOUS APPROVALS

SUBMITTAL (REQUEST FOR APPROVAL)

OWNER : NATIONAL GUARD / KING ABDUL AZIZ MEDICAL CITY - JEDDAH
PROJECT : PATHOLOGY AND MEDICAL LABORATORY BUILDING

TO : Engineering Service - Health Affairs
Project Management
Attn : Engr. Naf Saabhan
Associate Executive Director, PMO-WR

Submittal No. : MEC-AP-M-823
Date : 04/04/2016
Time :
New Submittal No. :
Previous Submittal No. :

Please review the following item(s) and return a copy with your action code for the following

Disciplines: ☐ Materials ☐ Shop Drawings ☐ Equipment ☐ Spec. Work ☐ Is Built Dwg ☐ Others

☐ Civil ☐ Arch. ☐ Elect. ☐ Mech ☐ Q.S ☐ Others

Item No.	Description / Location	Qty	Specs. & Section	Country of Origin	Manufacturer	Dealer/Supplier	Action Code
1	Sound attenuator units	FDI	211B/17	KSA	M.U. ALSAMMAN	MSC	(B)
2	Sound attenuator units	FSAR	211B/17	KSA	RABE AL TANAYEF		(B)
3	Sound attenuator units		211B/17	KSA	SHARQAWI		(C)

COMMENT FROM PROJECT MANAGEMENT

- follow the Contract Spec.

SUBMITTAL (REQUEST FOR INSPECTION)

OWNER : NATIONAL GUARD / KING ABDUL AZIZ MEDICAL CITY - JEDDAH
PROJECT : PATHOLOGY AND MEDICAL LABORATORY BUILDING

TO : Engineering Service - Health Affairs
Project Management
Attn : Engr. Naf Saabhan
Associate Executive Director, PMO-WR

Submittal No. : 0302150812148
Date : 03/02/2015
Time :
New Submittal No. :
Previous Submittal No. :

Please review the following item(s) and return a copy with your action code for the following

Disciplines: ☐ Materials ☐ Shop Drawings ☐ Equipment ☐ Spec. Work ☐ Is Built Dwg ☐ Others

☐ Civil ☐ Arch. ☐ Elect. ☐ Mech ☐ Q.S ☐ Others

Item No.	Description / Location	Qty	Specs. & Section	Country of Origin	Manufacturer	Dealer/Supplier	Action Code
1	GROUND FLOOR DUCT OF AHU NO 33 SUPPLY RETURN	1			MSC-SAPIC	MSC	(B)
2	GROUND FLOOR DUCT OF AHU NO 21 SUPPLY EXHAUST	1			MSC-SAPIC	MSC	(B)
3	GROUND FLOOR DUCT OF AHU NO 22 SUPPLY EXHAUST	1			MSC-SAPIC	MSC	(B)
4	GROUND FLOOR DUCT OF AHU NO 24-28-21 EXHAUST	1			MSC-SAPIC	MSC	(B)
5	GROUND FLOOR DUCT OF AHU NO 30 SUPPLY RETURN	1			MSC-SAPIC	MSC	(B)

COMMENT FROM PROJECT MANAGEMENT

Follow comments on the attached drawing.
* Provide Aluminum-oxidized iron pieces under Belts to protect insulation.
* check duct straightness.
* Provide Names tags and Labels as per colour code.
* all VAV's out of inspection & submit for approval.
* follow contract, documents and standards.

Owner representative who took action:

Name: Engr. Naf Saabhan
Signature: _____
TITLE: Associate Executive Director, PMO-WR
SIGNATURE: _____
DATE: _____

Submitted By:

Name: Engr. Naf Saabhan
Signature: _____
TITLE: Associate Executive Director, PMO-WR
SIGNATURE: _____
DATE: _____

Received By Contractor

Name: Engr. Naf Saabhan
Signature: _____
DATE: _____
SIGNATURE: _____

Received By Consultant

Name: Engr. Naf Saabhan
Signature: _____
DATE: _____
SIGNATURE: _____

ACTION CODE :
A - Approved as submitted B - Approved as noted C - Resubmit as noted D - Disapproved Resubmit
Acceptance does not release the contractor from his responsibilities in performing the work in strict conformance with Contract, Scope of Work and Technical Specifications.

PREVIOUS APPROVALS

11 AUG 2016

ABC
Muti & Ghubayr Co. Ltd.
For Contracting
(P.O. Box: 9934 Jeddah 21423, Tel: 012-6673087, Fax: 012-6650362)

Contract Title: Construction of Two Schools for SB School in Al-Azizyah 5 & 1B School in Al-Jar'1
Contract No.: PIC-G 1507A (Re-bid)

SUBMITTAL FOR
Date: 11 August, 2016
Contractor: MS-1507A-ME-100
Submittal #: _____
EWR No.: _____
Previous CSG Log #: _____

[] Shop Drawings [x] Material [] Others
[x] Approval [] Verification [] Information [] Schedule
[] Record [] Deviation [] Other
ATTENTION: Engr. Mangroob Basul Pining
Senior Resident Construction Manager

[x] First Submittal [] Re-Submittal (Previous Sub. No.):
Previous CSG Log #: _____

Subject Reference Spec.: Section: 15020
Item Description / Subject: SOUND ATTENUATORS
M.U.A.L SAMMAN EST.

List of Attachments:
3 Set of Technical data, Contact Specification

Contractor's Certification: "Having checked this submittal, we certify that it conforms to the requirements of the Contract Documents in all respects, except otherwise indicated herein."
Checked by: Project Manager
Signed by: Project Manager
Engr. Tamer Zaky Mohammad
Date: 11 August, 2016

Engr. Tamer Zaky Mohammad
Date: 11 August, 2016

Project Controls: [] CE [] IE [] ME [] SE [] Other
[] AR [] CR [] DR [] ER [] FR [] GR [] HR [] IR [] JR [] KR [] LR [] MR [] NR [] OR [] PR [] QR [] SR [] TR [] UR [] VR [] WR [] XR [] YR [] ZR

RECEIVED
18 AUG 2016
CSG

NOTE: Shop Drawing review require "Released for Construction" sticker before proceeding.
CSG Log #: 1507A
Date: 18 AUG 2016

CSG Supervisor: _____
Date: _____

RECEIVED
18 AUG 2016
CSG

NOTE: Shop Drawing review require "Released for Construction" sticker before proceeding.
CSG Log #: 1507A
Date: 18 AUG 2016

CSG Supervisor: _____
Date: _____

Project File No.: _____
EWR No.: _____
Ref. Number: _____
CSG/Chrono: _____

Engr. Mangroob Basul Pining
Senior Resident Construction Manager
Date: 13/ AUG 2016

66

ABC
Muti & Ghubayr Co. Ltd.
For Contracting
(P.O. Box: 9934 Jeddah 21423, Tel: 012-6673087, Fax: 012-6650362)

Contract Title: Construction of PUBLIC HOUSING - PHASE 2
Contract No.: PIC F-8131

SUBMITTAL FOR
Date: 22/2016
Contractor: MS-8131-ME-113.1
Submittal #: _____
EWR No.: _____
Previous CSG Log #: _____

[] Shop Drawings [x] Material [] Others
[x] Approval [] Verification [] Information [] Schedule
[] Record [] Deviation [] Other
ATTENTION: Engr. Basil Mahmoud Saghoreh
Senior Resident Construction Manager

[x] First Submittal [] Re-Submittal (Previous Sub. No.):
Previous CSG Log #: _____

Subject Reference Spec.: Sec: 23 31 13
Item Description / Subject: M.U.A.L SAMMAN FACTORY FOR AIR DISTRIBUTION SYSTEM / PRE-QUALIFICATION & MATERIALS
M.U.A.L SAMMAN EST.

List of Attachments:
Original set + 2 Copies
Commercial Documents, Organizational Chart, AITCC, Approval, Product Catalogues, Certified Specifications & EWR Log

Contractor's Certification: "Having checked this submittal, we certify that it conforms to the requirements of the Contract Documents in all respects, except otherwise indicated herein."
Checked by: Project Manager
Signed by: Project Manager
Engr. Majed Bahary
Date: 22/2016

Engr. Majed Bahary
Date: 22/2016

Project Controls: [] CE [] IE [] ME [] SE [] Other
[] AR [] CR [] DR [] ER [] FR [] GR [] HR [] IR [] JR [] KR [] LR [] MR [] NR [] OR [] PR [] QR [] SR [] TR [] UR [] VR [] WR [] XR [] YR [] ZR

RECEIVED
15/7/16
CSG

NOTE: Shop Drawing review require "Released for Construction" sticker before proceeding.
CSG Log #: 1507A
Date: 15/7/16

CSG Supervisor: _____
Date: _____

RECEIVED
15/7/16
CSG

NOTE: Shop Drawing review require "Released for Construction" sticker before proceeding.
CSG Log #: 1507A
Date: 15/7/16

CSG Supervisor: _____
Date: _____

Project File No.: _____
EWR No.: _____
Ref. Number: _____
CSG/Chrono: _____

Engr. Basil Mahmoud Saghoreh
Senior Resident Construction Manager
Date: 15/7/16

PREVIOUS APPROVALS

AL ZAHIRANI TRADING & CONTRACTING CO.
رقعة التجارة والتجارة
HEAD OFFICE: DUBAI, U.A.E. TEL: 04-3999999 FAX: 04-3999999

CONSTRUCTION OF ROYAL COMMISSION LABOR HOUSING
Contract No.: PIC G-1684

SUBMITTAL FORM

Shop Drawings: [X] Material [] Others []
 [X] Approval [] Verification [] Information []
 [] Record [] Deviation [] Others []
 ATTENTION: []
 [X] First Submittal []
 [X] Re-Submittal (Previous Sub. No.): ME-MAT-464
 Subject Reference Spec.: SEC. 15661
 Item Description: []
 List of Attachments: []

Contractor's Certification: "Having checked this submittal, we certify that it conforms to the requirements of the Contract Documents in all respects, except otherwise indicated herein."
 Prepared by: Mech. Engineer
 Checked by: QA/QC Manager
 EWR M. PEREZ
 Date: 09-Jul-15

Project Controls: [] AR [] CE [] Cost [] Quantity Survey [] Estimate [] Schedule []
 Royal Commission Review / Construction Support Group
 [] (A) Work May proceed - Minor Comments
 [] (B) Work May proceed - Minor Comments
 [] (C) Work May proceed - Minor Comments
 [] (D) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (E) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (F) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (G) Disapproval - Re-submission required (Specify reason for disapproval)
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 [] (U) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (V) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (W) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (X) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (Y) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (Z) Disapproval - Re-submission required (Specify reason for disapproval)

NOTE: Shop Drawing review requires "Released for Construction" stamp before proceeding.

CSG Log No.: 51729
 Received Date: 12-7-15
 EWR No.: 14152
 Ref. Number: 9-241
 CC: R/C/Chromo

Beijing Construction Engineering Group
Construction of Building for RC HQ at MVA
Contract No.: PIC K-1801 & 1801 X

SUBMITTAL FORM

Shop Drawings: [X] Material [] Others []
 [X] Approval [] Verification [] Information []
 [] Record [] Deviation [] Others []
 ATTENTION: []
 [X] First Submittal []
 [X] Re-Submittal (Previous Sub. No.):
 Subject Reference Spec.: SECTION 15046
 Item Description / Subject: DUCT WORK
 List of Attachments: []

Contractor's Certification: "Having checked this submittal, we certify that it conforms to the requirements of the Contract Documents in all respects, except otherwise indicated herein."
 Approved by: Project Manager
 Date: 18-06-15

Project Controls: [] AR [] CE [] Cost [] Quantity Survey [] Estimate [] Schedule []
 Royal Commission Review / Construction Support Group
 [] (A) Work May proceed - Minor Comments
 [] (B) Work May proceed - Minor Comments
 [] (C) Work May proceed - Minor Comments
 [] (D) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (E) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (F) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (G) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (H) Disapproval - Re-submission required (Specify reason for disapproval)
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 [] (W) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (X) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (Y) Disapproval - Re-submission required (Specify reason for disapproval)
 [] (Z) Disapproval - Re-submission required (Specify reason for disapproval)

NOTE: Shop Drawing review requires "Released for Construction" stamp before proceeding.

CSG Log No.: 51729
 Received Date: 12-7-15
 EWR No.: 14152
 Ref. Number: 9-241
 CC: R/C/Chromo

PIC K-1801 MVA Submittal Form Rev. 03 Nov 2013

25/8

PREVIOUS APPROVALS

NUMBER : Y02-03-00-06/03
DATE OF ISSUE : 01/06/1435

EWL LIST OF SUBMITTED MATERIALS
(NOT APPLICABLE TO DRAWINGS)

CONTRACT NO : PIC M-8003 EWR NO :

ITEM NO.	DESCRIPTION	REFERENCE TO CONTRACT	REVIEW STATUS
1	Sound Attenuators	Section 23 05 44	code A
2	Technical Data Sheet - M. U. Al Samman est. A. SOUND ATTENUATORS Note: With Certificate attachment.		

Manufacturer / Supplier:
M. U. Samman Est. (Manufacturer Of Duct, Volume Damper and Fire Damper)
P.O. Box: 132934
Jeddah 21382
Kingdom of Saudi Arabia
Tel.: +966 599 46107
Email Add.: vsmshulu@msc-sa.com

REVIEW STATUS
A- WORK MAY PROCEED - NO COMMENTS
B- WORK MAY PROCEED - MINOR COMMENTS
C- WORK MAY PROCEED EXCEPT AS NOTED (Resubmission Required)
D- DISAPPROVED - WORK MAY PROCEED EXCEPT AS NOTED (Resubmission Required)

NUMBER: Y02-03-00-06/03
DATE OF ISSUE: 01/06/1435

AL ZAHIRANI TRADING & CONTRACTING CO.
HEAD OFFICE: DAMMAM C/O. 2096011975, TEL: 8131999 FAX: 8131933
شركة الزهراني للتجارة والcontracting
One of Huzam Bldg. Al-Bah

SUBMITTAL FOR

Contract Title : CONSTRUCTION OF ROYAL COMMISSION LABOR HOUSING
Contract No. : PIC G-1684

DATE: 10-Aug-15
Contractor Submittal #: ME-MAT-464B
EWR No.: 51729
Previous CSG Log #: 51729

ATTENTION: ENGR. BASIL SAGHORI
RE-RESIDENT CONST. MANAGER

ME-MAT-464A
ME-MAT-464B
CSG Log #:

SPEC: 15641
PRE-QUALIFICATION & MATERIAL SUBMITTAL FOR HVAC DUCT BY SMC

List of Attachments:
A) CSG - EIC COMPLIANCE DOCUMENTS
B) PREVIOUS SUBMITTAL ME-MAT-464A

Contractor's Certification: "Having checked and submitted, we certify that it conforms to the requirements of the Contract Documents and Research, except otherwise indicated herein."

Prepared by: Mech. Engineer
Checked by: QA/QC Manager
ENGR. J. NITRO
ENGR. M. PEREZ
ENGR. GEORGE JEAN MOUHANNA
Date: 10-Aug-15

Project Controls: AR CE Cost Estimate Schedule
Quantity Survey
Royal Commission Review / Construction Submittal Group

ATTACHMENTS:
Engineering Review Comments Sheet(s) (1)
PWR List of Submitted Materials indicating the Review status
Contractor Drawing submitted sheet(s) indicating status of submitted drawings
Other enclosures / attachments.

NOTE: Shop Drawing review requires "Released for Construction" sticker having procedure.

CSG Log #: 52176
Receipt Date: 12-8-15
Date: 17/8/15

REVIEWER: Engr. Basil Saghori
Date: 17/8/15

FOR RC/MSC CONSTRUCTION

ADDITIONAL COMMENTS:
CODE "A" FOR PREQUALIFICATION / CODE "B" FOR MATERIALS SO COMPLY TO EIC & RESUBMIT

Project File No.: 141502
EWR No. / CSG Log: 51729
Rev. Number: 5-254
CC: RF/Chrono

For RC/MSC ENGR. BASIL SAGHORI
RE-RESIDENT CONST. MANAGER
Date: 15/8/15

PREVIOUS APPROVALS



SAMMAN FACTORY
FOR AIR DISTRIBUTION SYSTEMS

[illegible]

edss.sammangroup.com » 84



ads.sagepub.com » 85

[illegible]

OUR PROJECTS APPROVALS

SAMMAN FACTORY
FOR AIR DISTRIBUTION SYSTEMS



PREVIOUS APPROVALS

		UMM AL-QURA UNIVERSITY UNIVERSITY TEACHING HOSPITAL CONSTRUCTION SUPERVISION CONTRACT SAUDI CONSULTING SERVICES MATERIAL SUBMITTAL REPLY FORM - TEF-01 Sheet 4 of 4 1549-010
System Entry Date Stamp		Contract No.: P.O.139
Contractor: AL ARAB CONTRACTING CO.LTD.		Title: University Teaching Hospital
Transmittal No.: UQ-LUTH-MAT-M-004	Transmittal Date: 11-10-14	Material Submitted ☒ O&M Manual ☐ Sample
Subject: MSC AIR DISTRIBUTION SYSTEMS		
Document Type:		
Reply to contractor		
DOCTOWAL MANUFACTURED BY MSC - JEDDAH AIR DISTRIBUTION SYSTEM IS CONDITIONALLY APPROVED, SUBJECT TO THE FOLLOWING CONDITIONS; 1) MSC - JEDDAH FACTORY VISIT SHAL BE CONDUCTED BY CONSULTANT FOR INSPECTION OF FABRICATION PROCESS 2) IF THE DOCTOWAL IS CARRIED AS PER SUPPLIER STANDARDS & COMPLYING WITH URS SPECIFICATION (BY IEN PERSONS). NOTE THIS SUBMITTAL SHAL BE CONSIDERED AS PRE QUALIFICATION SEVERAL ONLY, THE CONTRACTOR SHAL PROVIDE FOR TECHNICAL SUBMITTAL - ONLY IF FINAL APPROVAL IS GIVEN FOR THIS. <i>Sy A</i>		

		Umm Al-Qura University UNIVERSITY TEACHING HOSPITAL SAUDI CONSULTING SERVICES CERTIFICATE OF COMPLIANCE MATERIAL TRANSMITTAL FORM - TSP-01		Contract No. P.O.139 Project No. 11-10-14	
Contractor Logo:		Title: University Teaching Hospital		Contractor Name: AL ARABAS CONTRACTING CO. LTD.	
We understand that approval of this material(s) submitted herein is only extended to determine general compliance with the intent of the project contract documents. By submitting these materials for approval, we confirm we have performed all necessary on-site emissions and building utility requirement coordination, and if approval is granted, will further coordinate the permit application with city and other concerned contractors employed by the University.					
Material Source Codes: (A) Saudi Arabia (B) Gulf Cooperative Council (C) Imported		Transmittal No. UG-LTH-WAT-M-004 Transmittal Date: 11-10-14			
Subject: MSC AIR DISTRIBUTION SYSTEMS		Comments:			
Item: 1 Specs: 1 Prod.: 1 Rev.: 1		Description: MSC AIR DISTRIBUTION SYSTEMS Location: 12934 JADOSH - 21352 Phone: 00966343000 Website: www.al-arabas.com Fax: 0096634344473			
Approval: [Signature] Date: 27/10/14		Approval: [Signature] Date: 27/10/14			
Action Codes: (A) Approved (B) Not Approved (C) Not Approved (D) Not Approved (E) Not Approved (F) Not Approved (G) Not Approved (H) Not Approved (I) Not Approved (J) Not Approved (K) Not Approved (L) Not Approved (M) Not Approved (N) Not Approved (O) Not Approved (P) Not Approved (Q) Not Approved (R) Not Approved (S) Not Approved (T) Not Approved (U) Not Approved (V) Not Approved (W) Not Approved (X) Not Approved (Y) Not Approved (Z) Not Approved					

PREVIOUS APPROVALS

المملكة العربية السعودية
وزارة التعليم العالي
Kingdom Of Saudi Arabia
Ministry of Higher Education

جامعة هرت
University of Hail

الموقع الإلكتروني: www.uoh.edu.sa
هاتف: ٥٢٥٨٢٠٠ (٠١٦) صندوق بريد: ٢٤٤٠

الموافق: ٢٠١٦/٠٨/٢٥
التاريخ: ٢٠١٦/٠٨/٢٥
الرقم: ٣٧/٢٣/٢٥

المشرف العام
على الإدارة العامة للمشروعات والتشييد والصيانة
م. محمد بن عيسى العيسى

لإحاطة ولكم تحياتي،،،

نذا نقولكم بالموافقة على تأهيل واعتماد مصنعكم لتوريد معدات هواء التكييف المركزي وذلك لمشروع الجامعة، وفي حالة رغبة المصنع التمتع للاعتداد بأحد المشاريع فإنه ينبغي عليه رفع المعاملة عن طريق الشاغل الرئيسي للمشروع إلى الاستشاري المشرف بذلك المشروع، كما ينبغي على إدارة المصنع التقييد بالبرنامج الزمني والمواصفات الفنية لهذا المشروع ومواصفات الهيئات العالمية مثل (ASHRAE - SMACNA).

المستلم: مصنع محمد أسامة السلمان
السلام عليكم ورحمة الله وبركاته وبعد،،،

المودع: تأهيل مصنع محمد أسامة السلمان لتصنيع معدات هواء التكييف

بالإشارة إلى خطبكم رقم (MSC-00101119-FA) وتاريخ ٢٠١٦/٠٨/٢٥ والمتضمن طلبكم الموافقة على تأهيل مصنعكم لإنتاج وتصنيع وتوريد معدات هواء التكييف المركزي (Air Conditioning Duct) وملحقته، وبالإشارة لملف التأهيل المقدم منكم وبعد الزيارة التي تمت يوم ٢٠١٦/٠٨/٢٥ من قبل مهندسي الإدارة العامة للمشروعات لمصنعكم بجهة. وحيث أن سلامة الأعمال للمصنع جيدة في هذا المجال ومعتمد لدى العديد من الجهات الحكومية المختلفة.

ABC
ASHI & BUSHNAG COMPANY
FOR CONTRACTING
JEDDAH

TECHNICAL SUBMITTAL SHEET
(FOR KAUST HARBOR WEST SCHOOL REMODELLING PROJECT)

King Abdulaziz University
FOR SCIENCE & TECHNOLOGY
THAMAL, JEDDAH

Date: 16 August, 2015 Rev: 00 Form: TSS

TO: KAUST Engineering & Project Management (E&PM)
KAUST Harbor West School Remodelling Project
Thuwal Jeddah, Saudi Arabia

ATTN: Mr. Henry Kachouri
Manager Quality Assurance E & PM

Cc: Mr. Ashraf Sadek
Manager Execution E & PM

Mr. Haris Siddiqui, PE
Project Engineer E & PM

FROM: Ashi & Bushnag Company for Contracting
Contractor KAUST Harbor West School
Remodelling Project, Jeddah

CONTRACT NO.: KAUST-AOR-91398

PROJECT TITLE: HARBOR WEST SCHOOL REMODELLING

LOCATION: KAUST

Attachments:
No. of Hard Copies: 2 TWO
No. of Soft Copy: 1 ONE

SUBMITTED FOR:

Description	Code	Transaction Code
Approval	1	1
Coordination	2	
Clarification	3	
Information	4	

DISCIPLINE CODE

A ☐ Architectural	M ☒ Mechanical
C ☐ Civil	E ☐ Electrical
S ☐ Structural	I ☐ Instrumentation
T ☐ Telecommunication	O ☐ Others

REVIEW STATUS

A ☒ Approved
B ☐ Approved With Comments
C ☐ Resubmit
D ☐ For Information

DOCUMENT TYPE

SD- Shop Drawing	DC-Documents	SM-Sample	O- Others
PQ-Pre-qualification	CT- Certificates	GT- Guarantee	

KAUST E&PM
(REVIEW COMMENTS/ APPROVAL/ ACTION)

Approval is only for general conformance with the contract documents.
Such review does not relieve the contractor for its responsibility under the terms of the contract nor authorized additional compensation.

KAUST E&PM / CONSULTANT

Name & Signature: Hassan Basara / A. Alkhalaf

Date: March 20, 2016

Prepared By: AMAN AHMED
AMAN ASSISTANT

Checked/Reviewed By: Rami G. Escudro
Quality Control Engineer

Date: 22/03/2016

Approved By: Eng. Amir Gaber
Project Manager

Date: 22/03/16

DATE

Kingdom of Saudi Arabia
Ministry of Education
Jazan University

Membership of E-Learning and Distance Learning

المملكة العربية السعودية
وزارة التعليم
جامعة جازان

عضوة التعليم الإلكتروني والتعليم عن بعد

شروع : على العلوم وآداب مساهمة .
القول : شركة كين الانترنات الدولية للاستشارات
الموضح : طلب اعتماد مصنع بحري بواء فتيكيت .
رقم : 13290

الساحة مكنية احمد الموسى الاستشاريه الهندسيه
محافظه الله

الحرام عليكم ورحمة الله وبركاته ... و بـ...
تهنيك الإدارة المنة للمشروع لمبب التحديا والتغيير ، بالإشارة الى خطاكم الوارد رقم (35/2016) بتاريخ 1438/2/16 هـ. الوارد لنا برقم 13290 والمتضمن طلب المتناول اعتماد مصنع تصنيع بحري البواء لشركة التكييف بالمشروع المذكور اعلاه ، فقه بعد الداسة والأطلاع ، نفيكم بالموافقة على اعتماد مصنع السمان التصنيع بحري البواء بشبكة التكييف بالمشروع المذكور اعلاه .
على ان يلزم المتاول بما يلي :
1_ ان تتم عمليات التفتيش الحاقية الخاصة بصحري البواء المستقبية عن طريق الماكينات ورأى اى عملية تقبل عن طريق الصالة الجوية .
2_ الالتزام بالصوامصات الفني وجدول الكميات والمخططات التعقيدية الخاصة بالمشروع .
3_ تطبيق تعليمات الكود السعودي والقود المعلى والهيئات المعنية مثل (SWACNA) لاعلى التكييف .
4_ اكتمار سدة المساج حسب مقاطع صحراري البواء بناما على الجدول الخاصة بذلك الموجودة بالصوامصات المعلى .
5 _ تقدم لجمع اصل التكييف لمدة لا تقل عن عشر سنوات .

وتقبلوا سعادتكم خالص تحياتي وتقديرى،،،

المشرف على الإدارة العامة للشروعات

محمد بن إبراهيم حكيم

التاريخ: ١٤٣٩هـ
الرقم: ١٧٢٩٠

الموقع: بركة علف - ٤٦١١ هاتف : ٠١٧٣٢٣٤٩٧٥ فاكس : ٠١٧٣٢٣٤٩٧٥
K.S.A Jazan P.O.Box 4421 Tel : 0173234975 Fax : 0173234970

PREVIOUS APPROVALS

المملكة العربية السعودية
وزارة التعليم العالي
جامعة طيبة
(١٣٩٠)

KINGDOM OF SAUDI ARABIA
Ministry of Higher Education
TAIBAH UNIVERSITY
Code (039)

إدارة الإشراف على المشاريع

السادة / مكتب الخدمات الاستشارية، السعودي
مناية المهندس/نبيل شلطي

السلام عليكم ورحمة الله وبركاته
وبعد:

إشارة إلى خطابكم رقم (س/ك/١٠٢٥/ج/٤٨١٥) في تاريخ ١٤٣٥/٠٨/٢٠هـ، بخصوص اعتماد وتأهيل مصنع (محمد أسامة السمان) لتوريد مجاري الهواء تهوية والتكييف لمشروع مبنى المواقف المتعددة الأتوار مقالة مجموعة شركات الظاهري. وحيث أوصيتم في خطابكم أعلاه، باعتماد مصنع (محمد أسامة السمان) لتوريد مجاري الهواء تهوية والتكييف.

نفيدكم أنه لا مانع من اعتماد المصنع المذكور على أن يتم الالتزام بمواصفات المشروع التعاقدية وأن يكون توريد المواد بالكميات والجودة المطلوبة بالوقت المحدد حسب البرنامج الزمني للمشروع وعلى أن يتم عمل معانية للكمية الأولى من المنتج في المصنع قبل التوريد للمشروع.

وتقبلوا تحياتي ...

مدير عام الإدارة العامة للإشراف على المشاريع
م/ أسير عبدالحسن خاشقجي
٨-٤٢

تاريخ: ١٤٣٥/٨/٢٠هـ
رقم: ٨-٤٢

م/ أسير عبدالحسن خاشقجي

Becc
Bec
PROJECT NO: LOCATION: JAZAN UNIVERSITY - JAZAN (K.S.A)
PROJECT NAME: Faculty of Arts and Human Science

Submittal No: MECH (M 115)
Previous Submittal No:
SUBMITTAL PURPOSE: ☐ New Submittal ☐ Resubmittal

FOR INFORMATION ☐ FOR COMMENTS ☐ FOR APPROVAL ☐

TYPE OF DRAWING: ☐ CIVIL ☐ ARCHITECTURAL ☐ HVAC ☐ PLUMBING ☐ ELECTRICAL ☐ OTHERS

AS BUILT DRAWING ☐ CATALOGUE ☐ SAMPLE

NOTE: PLEASE USE THE ATTACHMENT IN CASE ITEMS ARE MORE THAN THE PROVIDED

S No	NAME OF MATERIAL	COMPANY PROFILE NAME	REV. NO	NO OF COPIES
1	Air Duct & Accessories	SAMMAN Air Distribution Systems	00	1
2				
3				
4				
5				

Contractor's Remarks:

CONTRACTOR PROJECT MANAGER
NAME: Ahmed Yehya Zakarya
Signature:
DATE: 02/10/2016

CONTRACTOR COMMENTS:
- fire damper is not listed
- fire smoke damper

Approval Status: ☐ Approved ☐ Disapproved

Approved As Noted
Resubmittal is Required

CONTRACTOR ENGINEER
NAME: Ahmed Yehya Zakarya
Signature:
DATE: 02/10/2016

CONTRACTOR COMMENTS:
- fire damper is not listed
- fire smoke damper

CONTRACTOR PROJECT MANAGER
NAME: AHMED YEHYA
Signature:
DATE:

CONTRACTOR PROJECT MANAGER
NAME: AHMED YEHYA
Signature:
DATE:

PREVIOUS APPROVALS

CONSULTANT مهندسان و معماران و مهندسان المعماري والهندسي (عربية) PLANNERS, ARCHITECTS & ENGINEERS BEAH		OWNER TAIBAH UNIVERSITY 		CONTRACTOR شركة بنادك للتجارة العامة SAUD BIN ALJUM GROUP 	
PROJECT : TAIBAH UNIVERSITY COLLEGE OF MEDICINE					
REQUEST FOR SUBMITTAL				REF.: MT-SM-M-B-015-00	
ENCLOSURE ☐ SD - Shop drawings ☒ AB - AS Built drawings ☐ TR - Test Results ☐ CT - Certificates		☒ SM - Sample ☒ MD - Manufacturer's Data ☐ GT - Guarantees ☐ OT - Other		APPOINTED SCHEDULE DATE: 20-Dec-14 Checking Required on: 20-Dec-14 TIME: 12:00 AM	
WORK TO BE CHECKED Discipline ☐ Architectural ☐ Civil ☐ Structural ☐ Electrical ☒ Mechanical ☐ Others					
ITEM OF SUBMITTAL : HVAC DUCT M.U. Alaminan Salina Sample Boards & Catalogs Attached (1 Copy)		INSPECTION / TEST ☒ Submittal ☐ Re-Submittal ☐ Test ☐ Re-Test		ATTESTED BY: Technical Office ENG. Ahmed Moustafa 	
INITIATED BY : CONTRACTOR Architectural ☐ Civil ☐ Structural ☐ Electrical ☒ Mechanical ☐ Survey ☐ QA / QC ☐ Others		SIGNATURE CONSULTANT ☐ Architectural ☐ Civil ☐ Structural ☐ Electrical ☒ Mechanical ☐ Survey ☐ QA / QC ☐ Others		SIGNATURE For Contractor Eng. Osama Saleh Project Manager 	
CONSULTANT REMARKS : تم اكمال العمل على منهج التصميم المعماري و M.U. Alaminan والمواد الخاصة بالهياكل و SMACNA و M.U. Alaminan و M.U. Alaminan					
STATUS : ☐ APPROVED ☒ APPROVED AS NOTED ☐ NOT APPROVED					
CONSULTANT ENG. : 26.3.2015				PROJECT MANAGER : Date: 29 MAR 2015 	
				RECEIVED 29 MAR 2015 	

CONSULTANT مهندسان و معماران و مهندسان المعماري والهندسي (عربية) PLANNERS, ARCHITECTS & ENGINEERS BEAH		OWNER TAIBAH UNIVERSITY 		CONTRACTOR AL MUHAJIB CONTRACTING المهيذب للتجارة العامة Contracting 	
PROJECT : TAIBA TEACHING HOSPITAL					
MATERIAL SUBMITTAL					
☒ New Submittal ☐ Resubmittal		Previous Submittal No. MECH-M-0027		Previous Submittal Date 28-Apr-15	
PURPOSE OF SUBMITTAL : ☒ For information ☐ For comments ☐ For approval					
DISCIPLINE ☐ CIVIL ☐ ARCHITECTURAL ☒ MECH - HVAC ☐ STRUCTURAL ☐ ELECTRICAL ☐ EQUIPMENTS					
MATERIAL EQUIPMENT ☒ Catalogue ☐ Fabric ☐ Certificate ☐ Document ☒ Tech Data ☐ Manufacturer / Supplier ☐ Samples					
S. N. Description Brand Name Origin Specification Reference Approval Status					
GALVANIZED STEEL SHEET DUCTWORK					
1	GALVANIZED STEEL SHEET DUCTWORK	CUBE METAL	K.S.A	METAL	SMACNA 15891-2-1-6
2	GALVANIZED STEEL SHEET DUCTWORK	INDUSTRIAL	K.S.A	SAFID COMPANY	
3	GALVANIZED STEEL SHEET DUCTWORK	M.S.C. COMPANY	K.S.A	M.S.C. COMPANY	
4	GALVANIZED STEEL SHEET DUCTWORK	Y	K.S.A	COMPANY	
Initiated By : Eng. : Mohammed Rami Mechanical Engineer 		Technical Office Manager Eng. : Ahmed El-Shirawy 		Project Director Eng. : Fahad Alkhutaf 	
Consultant's Comments Approved Safid / M.S.C. Company as noted on attached sheet 1/1		Client Representative's Comments Date In : Date Out :			
Project Supervisor : Eng. : Ahmed El-Shirawy Signature 		Consultant Manager : Eng. : Salah Sayed Signature 		Approval Status ☒ Approved ☐ Disapproved ☐ No Action	
REF. IN Signature Date		REF. OUT Signature Date			

SAMMAN FACTORY
FOR AIR DISTRIBUTION SYSTEMS



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SAMMAN FACTORY
FOR AIR DISTRIBUTION SYSTEMS

OUR PROJECTS
APPROVALS

CONSULTANT SSC-40  تربية والتعليم المملكة العربية السعودية PLANNED AND ESTEEDS DIVISION	LOGO-2018  Tashira Teaching Hospital PROJECT : TASHIRA TEACHING HOSPITAL	CONTRACT NO. AL HARBEEH CONTRACTING AlMuhaidib Contracting Company 	MATERIAL SUBMITTAL Submitted On: <u>20/04/2018</u> Project Location No: <u> </u> Submitted By: <u> </u> Project Number: <u> </u> PURPOSE OF SUBMITTAL: ☐ For Information ☒ For Approval ☐ For Archive ☐ For Change ☐ For Extension ☐ For Revision ☐ For Approval ☐ For Archive MATERIAL / EQUIPMENT: ☐ MATERIAL ☐ EQUIPMENT ☐ ELECTRICAL ☐ MECHANICAL ☐ PLUMBING a. ☒ Equipment b. ☐ Material c. ☐ Other (specify) d. ☐ Other (specify) <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 5%;">#</th> <th style="width: 35%;">Description</th> <th style="width: 10%;">Brand Name</th> <th style="width: 10%;">Origin</th> <th style="width: 10%;">Material / Specification</th> <th style="width: 10%;">Date</th> <th style="width: 10%;">Status</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>GALVANIZED STEEL CUBE METAL INDUSTRIAL</td> <td></td> <td>K.S.A</td> <td>CUBE METAL INDUSTRIAL</td> <td></td> <td>Approved</td> </tr> <tr> <td>2</td> <td>GALVANIZED STEEL SAFID</td> <td></td> <td>K.S.A</td> <td>SAFID</td> <td></td> <td>Approved</td> </tr> <tr> <td>3</td> <td>SHEET DUCTWORK M.S.C COMPANY</td> <td></td> <td>K.S.A</td> <td>M.S.C COMPANY</td> <td></td> <td>Approved</td> </tr> <tr> <td>4</td> <td>SHEET DUCTWORK</td> <td></td> <td>K.S.A</td> <td>M.S.C COMPANY</td> <td></td> <td>Approved</td> </tr> </tbody> </table>	#	Description	Brand Name	Origin	Material / Specification	Date	Status	1	GALVANIZED STEEL CUBE METAL INDUSTRIAL		K.S.A	CUBE METAL INDUSTRIAL		Approved	2	GALVANIZED STEEL SAFID		K.S.A	SAFID		Approved	3	SHEET DUCTWORK M.S.C COMPANY		K.S.A	M.S.C COMPANY		Approved	4	SHEET DUCTWORK		K.S.A	M.S.C COMPANY		Approved
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3	SHEET DUCTWORK M.S.C COMPANY		K.S.A	M.S.C COMPANY		Approved																																
4	SHEET DUCTWORK		K.S.A	M.S.C COMPANY		Approved																																

Issued By: <u> </u> Eng. Mohamed Hamza Mechanical Engineer	Issued On: <u>20/04/2018</u> Eng. Ahmed El-Shawarby Mechanical Engineer	Project Director: <u> </u> Eng. Fahad Al-Mutairi	Client Representative's Comments: Date In: <u> </u> Date Out: <u> </u> Approved Safid / M.S.C. Company as noted on attached sheet 1/1
---	---	--	---

Project Supervisor: Eng. Ahmed El-Shawarby Signature: <u> </u>	Consultant Engineer: Eng. Ahmed El-Shawarby Signature: <u> </u>	Consultant Manager: Eng. Mohamed Hamza Signature: <u> </u>
---	--	---

شركة أحمدة الجوسم الهندسة المعمارية
Ahmed Al-Mousa Engineering Consultants

جواز في: 1438/01/02 هـ
السرايق: 2016/10/03 م
الرقم: 114/2016

المشروع: إنشاء كلية العلوم والأداب بصامطة
الموضوع: طلب اعتماد مصنع مجاري وأكسسوارات الهواء
السادة / شركة بكن الإمارات الدولية للإشاعات
المهندس / الجراحى أبو المعطا (مدير المشروع)

المحترمين
المحترم

إشارة إلى الموضوع أعلاه وإلى خطايكم رقم (يدون) بتاريخ 2016/10/3 والخاص باعتماد مصنع مجارى الهواء الآتية:-

- مصنع السمان
- مصنع Metal Industries

عليكم عمل الآتى

1. استكمال الملفات الخاصة لشركة السمان من حيث شهادة ال U.L ال U.L من:-
(fire damper-fire smoking damper-duct)
2. ترتيب زيارة للمصنعين للتقييم.
3. توريد عينات فور اعتماد المصنع للموافقة على التوريد.

وتفضل بقبول التحية ،،،،،

مدير المشروع الإستشارى
م / أحمد رجب

مهندس من استشاريين مصر
إشراف / دة مسليمة قمار كخطيط

مكتب أحمدة الجوسم الهندسة المعمارية
Ahmed Al-Mousa Engineering Consultants
P.O.Box 7266, Dammam 31463 Tel: 013-4488844 Fax: 013-4488844
E-mail: ahmed@amoussa-eng.com
Lic No: 572, Saudi Arabia C.R: 2050288202 Registration No: 14631 Website: www.amoussa-eng.com

King Abdulaziz University
FEMALE CAMPUS PROJECT
CONSTRUCTION SUPERVISION CONTRACT
ZUHAR FAYEZ PARTNERSHIP CONSULTANTS

System Entry Date Stamp

CERTIFICATE OF COMPLIANCE
MATERIAL TRANSMITTAL FORM - TSF-01
SHEET 3 OF 3
(Rev. Date 01 November 2010)

Contract No: CNCF203X
Contractor: Bonyingyung Construction Co.
Title: College of Nursing - Female

Transmittal No: MMAT-022
Transmittal Date: 19-Oct-14

MATERIAL SOURCE CODES:
(S) Saudi Arabia
(G) Gulf Cooperative Council
(F) Imported

Subject: Material Submittal for "Air Distribution System"

Item	Specs	Prod.	Rev.	Description	Subs. Req.	Source	Action	Comments
1			0	Supplier M.U. Alsamman Est. (MSC) Email: ds1@sc-sa.com Tel: 012 670 6853 Fax: 012 674 4479 Manufacturer M.U. Alsamman Est. (MSC)		S	B	COMMENT RETURN TO ATTACHED

The above approval does not relieve the Contractor of any contract obligations, whether for coordination, compliance, or quality with the contract terms and conditions of the contract.

CONTRACTOR RECEIPT:
Date: 2/12/2014
Signature: [Signature]

ACTION CODES:
(A) Approved
(B) Approved As Noted, Resubmittal Not Required
(C) Revise and Resubmit
(D) Not Approved

Signature of Contractor: Eng. K. Park - Project Manager

Signature of Consultant: [Signature]

Signature of University: [Signature]

PREVIOUS APPROVALS

PROJECT No. _____ **LOCATION:** _____

PROJECT NAME: _____

DISCIPLINE
☐ CIVIL ☐ ARCHITECTURE ☐ STRUCTURAL ☒ HVAC ☐ PLUMBING ☐ ELECTRICAL ☐ CALCULATIONS

ATTACHMENT
☒ CATALOGUE ☐ DRAWING ☐ CERTIFICATE ☐ SAMPLE ☐ TECH. DATA

MATERIAL / EQUIPMENT
 1 Duct work for HVAC ICSEA MSC 15845 SAMMAN
 System
 AV Disk System
 ASHRAE

Contractor's Remarks
 We clarify that above submittal is strictly adhered with contract documents and specifications except otherwise stated below:

MATERIAL SUBMITTAL

Submitter: **IPDA JUNE NA-25**
 Submittal No. _____
 Submittal Date: **7/2/2015**
 Previous Submittal No. _____
 Previous Submittal Date _____

PURPOSE OF SUBMITTAL
☐ For Information ☐ For Comments ☒ For Approval

Approval Status
☐ Approved ☐ Disapproved ☐ No Action

Approval Status
☒ Approved ☐ Disapproved ☐ No Action

Approval Status
☐ Approved ☐ Disapproved ☐ No Action

CONSULTANT REPRESENTATIVE
 Name: _____ Position: _____ Signature: _____ Date: _____

OWNER REPRESENTATIVE
 Name: _____ Position: _____ Signature: _____ Date: _____

Contractor's Representative
 Name: _____ Position: _____ Signature: _____ Date: _____

Approval Status
☐ Approved ☐ Disapproved ☐ No Action

CONSULTANT
 JEDDAH UNIVERSITY
 COMPUTER SCIENCE FACULTY
 PROJECT NO: CNAM 105 BX
 TS-09

CONSULTANT
 JEDDAH UNIVERSITY
 COMPUTER SCIENCE FACULTY
 PROJECT NO: CNAM 105 BX
 TS-09

MATERIAL SUBMITTAL DELIVERY

Location Bldg.: **ASFAN** Station Area: **M2** RFI #: **33 H** Schedule Date: **27/08/2017** Time: **11:00**

Contract Drawing Reference: _____ Zone No.: _____

SOUND ATTENUATOR (SUPPLY + RETURN)

Reviewed by	Contractor Initial	Contractor Date	Consultant Initial	Consultant Date	Sanit Remarks
Surveyor					
Civil/Struct.					
Electrical					
Mechanical					
Architect					

General Comments:
 * Sand Attenuators arrived
 as per approved list (ok)

General Comments:
 * Angle reinforcement shall be as per J19A CNA.

General Comments:
 * Angle reinforcement shall be as per J19A CNA.

General Comments:
 * Angle reinforcement shall be as per J19A CNA.

PREVIOUS APPROVALS

[illegible]

 ZUHAIR FAVEZ PARTNERSHIP	 PROJECT	 CONTRACTOR
--	---	--

25 Oct 2013	ALSAMMAN DUCT FACTORY	C.16/V/Co
--------------------	------------------------------	-----------

Submitted	24/10/2015	Moch12			
Date:					
Early Required Date of					23/11/13
Material:					
Late Required Date of Material:					DIV 23
Subject:	ALSAMMAN (MSC) DUCT FACTORY				

DUCT WORK MSG P.O BOX 113394 JEDDAH 21382	Attachments: ☒ Technical Brochure ☒ Certificate ☐ Shop Drawings ☐ Samples ☐ O & M Manuals
Material Description:	
Estimated Delivery Time to Site:	
Contractor's Comments:	
DUCT WORK FACTORY PROJECT MANAGER: ENG. OJAMA SUDOMA	
Engineer's comments:	

From Zuhair Favez Partnership to Client:
 The above submittal was received and studied according to the relevant documents and our comments are as follows:

(X) 1st option is approved as noted.
 (X) Volume danger should be provided with stopper not get lost.
 Conclusion: (X) Volume danger should be provided with stopper not get lost.
 with 4/14/13 date to 13/11/13 date.
 (X) Submit sample for fire tested duct for smolder duct.

Date: 11/11/13
 Signed by: 

From Client to Zuhair Favez Partnership:
 The submittal was reviewed and evaluated and the following are our comments:
 (X) put size up to 50mm should be 750 joints not after 50mm the above shall be change joints.


 S.C.C
 Received
 16/11/13

Doc. Ref: OSF0855
 Issue Date: 06-Jun-13

ZUHAIR FAYEZ PARTNERSHIP
28 DEC 2016
RECEIVED

PROJECT
BAYRUT
RIMS
AIR DUCT FABRICATOR
PROPOSED AIR DUCT

CONTRACTOR
RECEIVED
28-12-2016
MAMAT

SUBMITTAL FORM

SUBJECT: METAL DUCT - GALVANIZED

Specs. Code & Ref. Drawing No. Submittal No. MEC-MT-037

23 231113 Date Received: 28-12-2016

Date Returned:

Sub-contractor Name: MAIDAT Address: MAKKAH Phone: 05503030 Telex:

Manufacturer Name: SAMMAN Address: JEDDAH Phone: Telex:

Supplier Agent Name: SAMMAN Address: JEDDAH Phone: Telex:

Information submitted and attached:

Certificates ☐ Operation & Maintenance Manual ☐

Technical Brochure ☐ Spare Parts List ☐

Manufacturer's Data & Specs. ☐ As Built Drawings ☐

Shop Drawings ☐ Warranty ☐

Samples ☒ Others (specify) ☐

Contractor's Comments:

METAL DUCT - GALVANIZED

Note: This review does not relieve the contractor (Contractor) of his responsibilities under the terms of the contract nor authorize additional compensation.

Signature: P.M. ENG. A. ZAKARIA Date: 28-12-2016

Consultant's Comments:

① Submitter - sample of volume control dampers (3 required)

Status:

Discipline	Sign & Date	Resident Engineer
1 Approved	☒	Sign: Date: 28/12/2016
2 Approved as noted	☐	
3 Revision and submit	☐	
4 Rejected	☐	

Doc. Ref. CDF00406 Issue Date: 06-Jan-15

Project Name : COLLEGE OF NURSING
Project ID : CNCF 203X
Ref. No. : MMT-022 Rev. 00
Subject : Air Distribution System

M.U. Al Samman air duct factory is approved as following:

1. All manufactured ducts, fittings and accessories shall be as per SMACNA Standards recommendation.
2. This approval is for this project only, subject to consultant's supervision for quality.
3. All ducts shall be Transverse Duct Connections.
4. Submit duct fabrication standards based on the static pressure of AHU and SMACNA standards.

Reviewed by:


Noel S. Bitera
Mechanical Engineer



المملكة العربية السعودية
الهيئة العامة للغذاء والدواء
الإدارة العامة للمنتجات
(٢٠٢٤)

Kingdom of Saudi Arabia
Technical and Vocational Training Corporation
(224)

الرقم: ١٨٨٦/٤٠٨٧
التاريخ: ١٩/١٢/١٤٤٦
أحمد محمد

المنتوج طرف

اسم المشروع: إنشاء المعهد الصناعي الثانوي بجدة

المادة المقدمة: مصنع مجاري الهواء والاكسسوارات الخاصة بها

اسم المورد/المصنع: مصنع محمد اسامة السمان للمنتجات الحديدية

المكونين / مؤسسة تاج الاقنات للمقاولات

ص.ب: ١٢٤٥٥١

الرياض: ١١٧٧٦

بالإشارة لخطابكم (٥٩/٤٠٨٦/ج)

بخصوص تقديمكم المواد اعلام

تفيدكم بالاتي:

٥- لاعلم من اعتماد مصنع محمد اسامة السمان للمنتجات الحديدية لتصنيع وتوريد مجاري الهواء والاكسسوارات الخاص بها للمشروع المذكور اعلام مع مراعاة مايلي:

- ١- المواصفات العامة والاصول الفنية والصناعية.
- ٢- تقديم المخططات للاعتماد قبل التوريد والتركيب.
- ٣- تقديم المواد والمعدات للاعتماد قبل التوريد والتركيب.
- ٤- مراعاة اشتراطات SMACNA لاعمال الدكت.
- ٥- عمل اختبارات اللازمة وتقديم النتائج والتاويل الرئيسي مسؤول مسؤولية كاملة عن حسن وجودة تنفيذ الاعمال وتقبلوا تحياتي.

بالتوكيد لجنة المعينات

فهد بن حمد العقيل

NCB الأهلي

الرقم : ١٤/ع/٢٤٤
التاريخ : ١٤٣٥/٦/٢٧ هـ
الموافق : ٢٠١٤/٤/٢٧ م

لنن بهمه الأمر

بعد التحيّة :

بهذا يفيد البنك الأهلي التجاري - دائرة الخدمات الإدارية بأن مصنع محمد أسامة يحيى السمان قد تمّ تمديد من قبلنا بتوريد دثكثات واكسورات لفروع البنك الأهلي التجاري وأنّ المصنع المذكور قد ورد إلينا فغاليا مواد دثكثات التكييف واكسورات الدثكثات لمشاريع فروع البنك الأهلي التجاري الموضحة أدناه :

- ١- فرع بنبع الرئيسي بمدينة بنبع .
- ٢- فرع محليل عسير بمدينة محليل عسير .
- ٣- فرع رايح بمدينة رايح .
- ٤- فرع العرين بأبها .
- ٥- فرع حي الجامعة بالرياض .
- ٦- فرع صنيّا المحمدية بمدينة صنيّا .
- ٧- فرع جيزان الدائر بمدينة جيزان .

وكالت الأعمال القائمة منهم إلتيا متميزة من حيث الجودة والالتزام بمواعيد التوريد . وبناءً على طلبهم أعطيت لهم هذه الإفادة .. بدون أي مسؤولية أو التزام علينا - ولنا حذر .

والله ولي التوفيق ...

عبد الرحمن بن يوسف
مدير عام الخدمات الإدارية

ENG. MOHAMED AL-HUSAINI
مهندس المحاسبة

البنك الأهلي التجاري
شركة مساهمة سعودية رأس المال (١٠٠٠٠ مليون ريال سعودي) مسجل بالتكامل - ص.ت ١٤٨٨
جدة الرمز البريدي ٢١٤٨٨ - المنطقة العربية السعودية - هاتف : ٢٧١٩٩ ١٩٩٩ - بريد إلكتروني : bank@alahl.com
The National Commercial Bank - A Saudi Joint Stock Company - Paid Up Capital SR 15,000 Million - C.R. 1588
P.O. Box 3555 Jeddah 21481 Kingdom of Saudi Arabia - Tel.: 646-4999 Cable Address : BANK SAUDI - Telex 60557160572605573 SJ - www.alahli.com

بنك الجزيرة BANK ALJAZIRA

الرقم : ١٢٣٩/٢٠١٤/٩٤٠/ج
التاريخ : ٢٠١٤/٥/٢٦ م
اليوم : الاثنين

لنن بهمه الأمر

بهذا يفيد بنك الجزيرة - إدارة الإمدادات بأن مصنع محمد أسامة يحيى السمان قد تمّ اعتماده من قبلنا بتوريد الدثكثات والاكسورات الخاصة بأعمال التكييف وقد قام المصنع المذكور بتوريد دثكثات التكييف واكسورات إلتيا لمشاريع فروع بنك الجزيرة التالية :

- ١- فرع شهاب بمدينة الطائف .
- ٢- فرع الخالدية على الطريق الدائري بالمدينة المنورة .
- ٣- فرع حي إسميليا بمدينة الرياض .
- ٤- فرع حي العزيزية بمدينة مكة المكرمة .
- ٥- فرع مدينة حائل .
- ٦- فرع المعطر بمدينة الرياض .

وكالت الأعمال الموردة من قبل هذا المصنع للفروع المذكورة أعلاه متميزة من حيث الجودة والالتزام بالمواعيد وبناءً على طلبهم أعطيت لهم هذه الإفادة نون أفنى مسؤولية أو التزام على بنك الجزيرة .

نائب الرئيس ورئيس إدارة الإمدادات
م. إيليا بن محمد يوسف

بنك الجزيرة
بنك مساهمة سعودية رأس المال ٣٠٠٠٠٠٠٠٠٠٠٠ ريال سعودي مسجل بالتكامل
جدة الرمز البريدي ٢١٤٨٢ - المنطقة العربية السعودية - هاتف : ٢٧١٩٩ ١٩٩٩ - بريد إلكتروني : bank@aljazira.com
The National Commercial Bank - A Saudi Joint Stock Company - Paid Up Capital SR 30,000,000,000 Fullly Paid
KING ROAD P.O. BOX 6272 JEDDAH 21482
TEL: 6098886 - FAX 6098881 - C.R. NO. 4030010523
website: www.baj.com.sa

[illegible][illegible]

PREVIOUS APPROVALS

MATERIAL SUBMITTAL

ARAB NATIONAL BANK (DHARAT LABAN)

☒ New Submittal	☒ Resubmittal	Date:	1-Nov-16	MS No.:	☐
☒ For Information	☒ For Approval	☐ For Construction / Fabrication	☐ Electrical	☐ For Processing	☐
☐ Architectural	☐ Structural	☐ Mechanical	☐	☐ Other (Specify)	☐

(Contractor's Co., Name) ITIJAH CONSULTANTS	Sub Contractor ITIJAH CONSULTANTS
Date: 01/11/2016	Signature: _____ Date Received: _____

☒ Information Submitted Attached	☐ Operation & Maintenance Manual	☐ Test Results
☐ Certificates	☐ Spare Parts List	☐ Calculations Report
☒ Technical Brochure	☐ As Built Drawings	☐ Proposals
☐ Manufacturer's Data & Specifications	☐ Warranty	☐ Others
☐ Sample	☐ Materials	

S/N	Description	Origin	Manufacturer/Supplier	Spec. Ref.	B.O.Q Ref.	App. Code	Sample Attached
1	GALVANIZED DUCTWORK INCLUDING ATTENUATOR, DUCTWORK (CLADDING)		MSC FACTORY	HVAC	3		

Contractor's Comments:

ITIJAH CONSULTANTS Comments:
DRAFT WORK THERE AS PER BOQ. 22/24 ABOVE AS REQUIRED.
THE RAMPEN SHOULD BE PROVIDED w/ STANDARDS 1 HOUR RATING.
⑤ ATTENTION TO BE AS PER NC LEVELS, REQUIREMENT.
⑥ CAPACITY TO BE AS STANDARDS SPECIFICATION.

Approval Codes		Received by Contractor	
☒ Approved As Submitted	☐ Not Approved As Noted (Resubmission required)	ITIJAH Resident Engineer	ITIJAH Project Manager
☒ Approved As Noted (Resubmission not required)	☐ Disapproved	Date: 11/12/2015	Date: _____
	☐ No Action	Name: _____	Signature: _____

MR F.H.M. / 2

Leo on: 10/12/2015

DOCUMENT TRANSMITTAL FORM (DTF)	
Contract No: 883	Work Package: CN12
TO: MIS. EHAF Consulting Engineers FROM: Ruwad Civil Construction (RCC) ATTN: Mr. Ahmed Alta (CRE)	
TRANS. NO: 883.4-Z04-W04Z-C-CN12-RCC-ECE-TRN-NA-07B7 DATE: 29-Oct-2014 CIREF: SBT-0150 / TRN-0444	

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☒ Documents ☐ Drawings/Sketch ☐ Report ☐ Change Order ☐ Letter ☐ Invoice ☐ BOQ/Specification ☐ Other: Material Sample	☒ Approval ☐ Review & Comments ☐ As Requested ☐ Information / Records Only ☐ For Necessary Action ☐ Other: ☒ SENT VIA: ☐ Attached ☐ Separate Cover	☐ A-Approved ☒ B-Approved as noted, Incorporate Comments ☐ C-Approved with Comments, Revise & Re-submit ☐ D-Rejected ☐ N-Noted ☐ R-Reviewed as Compliant ☐ S-Reviewed as Noted, Incorporate comments ☐ T-Reviewed with comments, Revise & Re-submit

Item No.	Submittal or Document No.	Rev. No.	Date	Description of Submittal or Document Title	Copies
1	883.4-Z04-W04Z-C-CN12-RCC-SBT-M0-0150	01	29-Oct-14	M.U. Al-Salman - Reply to Consultant Comments for (el - Rectangular Ducts) As per attached	3 Hard 2 Soft

Response:	
Submittal or Document Ref. No.	*Approval Status*:

Item No.	Submittal or Document Ref. No.	Description of Submittal or Document Title

Eng. Habi Abdul Samad Sr. Construction Manager	Title

Date	Title

Received By: Recipient Jaber Omar Development Co	Date

Legend: A- Approved B- Approved As Noted, Incorporate Comments C- Approved With Comments, Revise & Resubmit D- Rejected
 R- Reviewed As Compliant S- Reviewed As Noted, Incorporate Comments T- Reviewed with comments, Revise & Resubmit N- Noted

Doc./Form No. PSA-883-PP-02-05-FM Rev.0
 Revision: etc: 29 Sep-10



PREVIOUS APPROVALS

Dear Eng. Mohamed
25.10.14
RECEIVED
م.ع.البرقي
26-10-14

M MOHAMED HARASANI ARCHITECTS

RCC Ruwad Civil Construction

Submittal Information Sheet

Project No: 913 Submittal No: MAT /ME/1432
Time 02:00 PM
Project Name: AL KHAIR TOWER - Jeddah
Submittal Date: 25/10/2014

Item: **DUCT**
Item Description: **DUCTING FOR HAVC.**
(1 CATALOGUE INCLUDED)

Manufacturer: MU AL-SAMMAN
Supplier: MU AL-SAMMAN
Address: JEDDAH KSA
Tel:

Information Submitted

Drawings: _____
Samples: _____
Others: _____

Manufacturer Data: ☒ Catalogues: ☒
Instruction Procedure: _____

Contractor's Remarks

Some previously approved drawings - Fabricator for remaining missing
Consultant Remarks: Items as delivery time is high for short notice - well before
REFER TO COMMENTS IN SUBMITTAL OF AL-SAMMAN
FULLY COMPLY. SUBMIT SAMAN FOR APPROVAL.
ENGINEERING DELIVERY
AS IS HAVC, DO NOT
CIVIL: Mechanical, Electrical, Plumbing
1) Approved /10/2014
2) Approved with Condition /10/2014
3) Amend & Resubmit /10/2014
4) Disapproved /10/2014

Important Remarks:
(a) Works shall only proceed when action code is (1) or (2)
(b) Action code (3) shall be Resubmitted
(c) Review does not relieve contractor from responsibility of compliance with all requirements of contract and project specifications.

Contractor: RUWAD CIVIL CONSTRUCTION
Project Manager: Eng. Lucas Pastor
Signature: 
Approved by: **MHA - Mohamed Harasani Architects**
Project Manager: Archt. Tarek Zaid
Signature:  26.10.14

JABAL OMAR DEVELOPMENT PROJECT

MATERIAL SUBMITTAL FORM

Contract No: 883 Work Package: CN12

Technical Submittal
SUBMITTAL NO: 883-4-204-W042-C-CN12-RCC-SBT-M0-0150
TO: EHAF Consulting Engineers
DATE: 28-Oct-2014
FROM: RUWAD CIVIL CONSTRUCTION (RCC)
REVISION NO: 01
ATTN: Mr. Ahmed Atta (CRE)
C/REF: TRN-0444

MATERIAL SUBMISSION DESCRIPTION
Discipline: Mechanical - HVAC
Description of Material: GI-Rectangular Ducts (black steel duct & stainless steel duct)
Specification / Control Document Reference: Project Specification Div. 15-Sec. 15815
Manufacturer (Name & Address): MSC
Supplier / Local Agent: M.U Al-Saiman for steel Products for air distribution System
Description of Attachments: Reply to Consultant Comments
Description of Samples: --
Specification Comparison Sheet: Attached in Rev. 0
Comparison in case of Alternative Submittal: --

Submitted By Contractor's Rep.: Nabil Abdel Samad (Sr. Construction Manager) Signature:  Date: _____

PROJECT MANAGEMENT CONSULTANT'S REVIEW

Name: _____ Signature: _____ Date: _____

CLIENT'S (JODC) COMMENT'S (optional)

Name: _____ Signature: _____ Date: _____

SUPERVISION CONSULTANT'S COMMENTS

☒ A-Approved ☐ B-Approved As Noted, Work with Material May Proceed Subject to Incorporation of Comments & Resubmission within ... days
☐ C-Approved with Comments Work with Material May NOT Proceed, Revise & Resubmit
☐ D-Rejected

** Approved subject to submit samples.
* Follow Spec for each type and application - 04/11/14*

DATE RECEIVED: _____ **DATE RETURNED:** _____

SUPERVISION CONSULTANT RESIDENT ENGINEER'S SIGNATURE

For & On behalf of
Name: Engr. Ahmed Atta
C.R.E. - EHAF Consultant
Signature:  Date: 4/11/14

Document No: PSA-883-PP-02-07-FM Rev. 1
Revision Date: 15-Mar-2011

PREVIOUS APPROVALS

DIYAR  **golden tower**

Saudi Diyar Consultants

Transmittal To SDC (Materials)

☒ Submittal
☐ Resubmittal

AI Saad General Contracting
الاسعد العام للعقود

Date: 14-Oct-14
Project Code: JE-1016
Project Title: GOLDEN TOWER
Conf:

Trans. No.: MTN-4000
Department: AIR DISTR. ME EE X

From: Alsaad General Contracting Co. Ltd.

Contractor Use

Item No.: 22
Division: 22
Item Description: M.U. AL SAMMAN EST. FOR AIR DISTRIBUTION SYSTEM (DUCTING WORKSHOP) - PRE-QUALIFICATION OF M.U. Al Samman Est. For Air Distribution (ducting Workshop)
CD containing the above mentioned co. documents

Manufacturer or Designer: MSC
Dwp. No. / Catalog No. / Brochure No. / Others: N/A
No. of Copies: 3

Remarks:
Nothing Follows

Submitted by: Tarek Khanan
Signature: [Signature]
Title: Projects Director

Enclosures: As Stated Above
Items:

Saudi Diyar Use

Item #: 1
Code: 2
Reviewed By: N.A
Remarks:
1. No Exceptions Taken
2. Make Corrections as Noted
3. Amend and Resubmit
4. Rejected
Special Instructions:
+ Refer to our comments on the attached site staff comments sheet.

Reviewed by: [Signature]
Name: [Name]
Signed off by: [Signature]
Name: [Name]

Date: 11/1/2014
Title: [Title]
Signature: [Signature]
Date: 1-1-2014
Signature: [Signature]

F-CS07/B

EEC  **IHCC**
International Health Care Consultants

TRANSMITTAL/SUBMITTAL FORM

TRANSMISSION OF DRAWINGS, DOCUMENTS, SAMPLES, ETC.

PROJECT MANAGER: Hafez Muhammad Waqas

Transmittal No.: [Blank]
Date: 11-Apr-17
Submitted For: [Blank]
Approval: [Blank]
Your Information: [Blank]
Action: [Blank]

Package Title: The World Academy (TWA)
Project: [Blank]
Engineer's International: [Blank]

Package No.: 103488

WE ARE SENDING HERE WITH THE DRAWING/ DOCUMENTS / SAMPLES LISTED BELOW:

ITEM	QTY	Desc. / Spec. or BOQ Ref.	DOCUMENT / DRAWING NO.	DESCRIPTION	TYPE	CODE	ACTION
1	1			HVAC Duct Construction Schedule	OT	1	
				Brand: SAMMAN			

COPIES: [Blank]

Engineer IHCC: [Signature]
(Engr. Hafez Muhammad Waqas)

Engineer IHCC: [Signature]
(Engr. Asim Shikhan Khan)

REMARKS:
[Blank]

RECEIVED
19 APR 2017

DATE: 11/4/2017
FOR ENGINEER: [Signature]

[illegible][illegible]

 وزارة الصحة Ministry of Health		طلب الموافقة على عينة REQUEST FOR SAMPLE APPROVAL		المملكة العربية السعودية دولة الصحة جدة مديرية الشؤون الصحية - جدة إدارة المشاريع والشؤون الهندسية	
المرسلات: تاريخ: 12/7/2016		المستلم: تاريخ: 2015/11/25		رقم المشروع: 00966126706853 رقم الطلب: DSI@mh.gov.sa تاريخ تقديم: 12/7/2016	
ملاحظات: 1- يرجى تقديم عينة من المنتج المطلوب في موعد أقصاه 15 يومًا من تاريخ الموافقة.		ملاحظات: 1- يرجى تقديم عينة من المنتج المطلوب في موعد أقصاه 15 يومًا من تاريخ الموافقة.		ملاحظات: 1- يرجى تقديم عينة من المنتج المطلوب في موعد أقصاه 15 يومًا من تاريخ الموافقة.	
ملاحظات: 1- يرجى تقديم عينة من المنتج المطلوب في موعد أقصاه 15 يومًا من تاريخ الموافقة.		ملاحظات: 1- يرجى تقديم عينة من المنتج المطلوب في موعد أقصاه 15 يومًا من تاريخ الموافقة.		ملاحظات: 1- يرجى تقديم عينة من المنتج المطلوب في موعد أقصاه 15 يومًا من تاريخ الموافقة.	

Project Title : FCMS
Subject : Air Distribution system
Submittal : Mech-M02

REV. : 00
Date : 30- Nov -2016

Dr. Soliman Fakhri Hospital
MECHANICAL SYSTEM UNIT

MECHANICAL (AC DUCT)

MATERIAL SUBMITTAL

Contractor: M.U.A.L SAMMAN EST.

Project Name: KING FAISAL SPECIALIST HOSPITAL
Contractor: M.U.A.L SAMMAN EST.

Submitted Date: 1-Jul-15

Submittal No.	Discipline	For Information	For Comment	Submitted Date
1	Architectural	Structural	Plumbing	1-Jul-15

ATTACHMENT
Certificate

MATERIAL/EQUIPMENT
Name, No. and Description: GALVANIZED AC DUCT & ALUMINUM CLADDING
Manufacturer/Supplier: M.S.C (MUSSAMA AL SAMMAN)

Contractor's Project Manager: Eng. Ahmed Fathy
Signature: [Signature]
Date: 30/11/2016

Consultant's Remarks: Please Submit Sample For Final Approval
Please Submit material inspection before installation for final approval

Consultant Representative: Eng. Youssef Youssef
Signature: [Signature]
Date: 30/11/2016

Action Code: A Approved
REF. IN: [] Approved as Noted (no submittal is required)
[] Disapproved
REF. OUT: []
Signature: [Signature]
Date: [Date]

Project Title : FCMS
Subject : Air Distribution system
Submittal : Mech-M02

REV. : 00
Date : 30- Nov -2016

Dr. Soliman Fakhri Hospital
MECHANICAL SYSTEM UNIT

Dear M/s MSC,

Refer to your letter # 17112016, that requesting to have an approval for MSC factory for air distribution of HVAC system, please be informed that your request is approved as per the following:

1. All manufactured duct, accessories, items, fittings... shall be as per SMACNA , ASTM A 527, NFPA, Saudi local code, regulations and standards.
2. Zinc coating as per SMACNA standard.
3. Duct size to comply with SMACNA standard.
4. To provide sample for each item.
5. All duct shall be transverse duct connections.
6. The approval only for galvanized steel normal air duct not for smoke duct.
7. Duct fabrication shall be consider static pressure of the air handling machines and SMACNA standard for air pressure.

Eng. Ahmed Fathy
Mechanical System Unit Manager.

30/11/2016

JOUR

 SAMMAN

CONTRACTOR'S SUBMITTAL # M-0004		Revision No. 0	
Contract Title Makarem Aiyah Makkah Hotel Renovation Project			
Contract No.			
Submital Title: SHEET METAL DUCT FACTORY			
CATEGORY: SD= Shop Drawing, MD= Manufacturer's Data, MT= Material SAs, Sample, SC= Subcontractor, MS= Method Statement, CT= Certificate, TT= Test Result, GT= Guarantee, AS= As-Built Drawing, OT= Other			
We are sending herewith under separate cover the drawings / documents / samples listed below.			
ITEM NO.	DWGS, SPECS, BOQ REF.	DESCRIPTION	FORMAT COPIES
1.	4	SHEET METAL DUCT FACTORY	AL SAMMAN

We certify that the documents / materials submitted herewith have been reviewed in detail and are in accordance with the contract drawings and specifications except as otherwise stated.

Submitted by Contractor Name: Eng. Nader Alif	Signature: <i>Nader Alif</i>	Date: 4/02/2019
Received by Consultant	Signature: _____	Date: _____



Distribution: ☐ Client ☐ Consultant (Original)

Consultant Review Comments

- Provide Duct sample including elbow fittings for review and approval.
- Sheet metal thickness schedule shall be provided
- GT sheet material specs shall be provided

☒ Approved
☐ Approved As Noted
☒ Revise & Re-submit
☐ Not Required
☐ Rejected

Submittal Sign Off by Consultant

Consultant Project Engineer	
Name	Signature
Date	
Consultant Project Manager	
Name	Signature
Date	
Approved by Client	
Name	Signature
Date: 9/3/2019	
Received by Contractor	
Name	Signature
Date	

Corrections or comments made relative to submittals during the review do not release the contractor from compliance with the requirements of The Contract. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for confirming and correcting all quantities and dimensions, selecting fabrication processes and techniques of construction, coordinating its work with that of other trades and performing its work in a safe and satisfactory manner.

Distribution:

☐ Client

☐ Consultant

☐ Contractor

THANK YOU

 **Address (Jeddah Factory)**
jeddah addahia district 4405

 **Address (Riyadh Factory)**
Qurainah industrial city , Riyadh 13565

 **Telephone**
+966 592995120 / +966 597510438